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Price list.

PROVIDENCE TOOL CO.

AND

OTHER MANUFACTURERS

OF

HEAVY HARDWARE

SHIP CHANDLERY ETC.

HENRY B. NEWHALL

NEW YORK AGENT

11 WARREN ST.

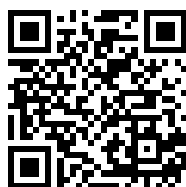
1879

SECOND EDITION

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PRICE LIST

OF THE

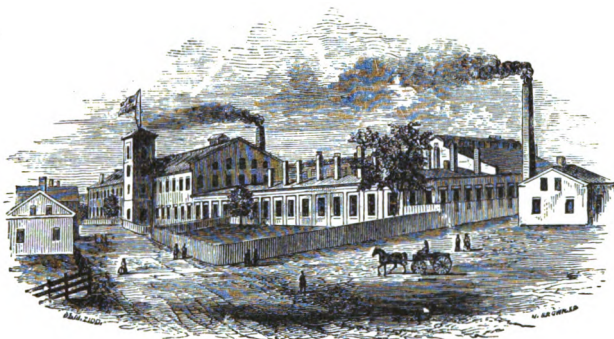
PROVIDENCE TOOL COMPANY.

JOHN B. ANTHONY, President,

WILLIAM B. DART, Treasurer,

PROVIDENCE, R. I.

MANUFACTORIES AT PROVIDENCE, R. I.



ESTABLISHED 1345.

SECOND EDITION.

HENRY B. NEWHALL, Agent, 11 Warren St., New York, N. Y.

J. H. WORK, Agent, 13 & 15 Pearl St., Boston, Mass.

S. H. & E. Y. MOORE, Agents, 63 Lake St., Chicago, Ill.

1879.

NOTICE.

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avoid mistakes.*

Copyright, 1879,
By PROVIDENCE TOOL COMPANY.

RIVERSIDE, CAMBRIDGE:
PRINTED BY H. O. HOUGHTON AND COMPANY.

SECOND EDITION,

1879.

PRICE LIST

OF GOODS MANUFACTURED BY

PROVIDENCE TOOL COMPANY.

Hubbard, Bakewell & Co.

Klein, Logan & Co.

W. P. Townsend & Co.

Standard Nut Co.

Pittsburgh Hinge Co. (*Limited.*)

Wm. H. Haskell & Co.

Penfield Block Works.

FOR GOODS MANUFACTURED BY

LEWIS, OLIVER AND PHILLIPS,

SEE SPECIAL CATALOGUE.

NEW YORK OFFICE AND WAREHOUSE,

11 WARREN STREET,

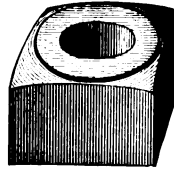
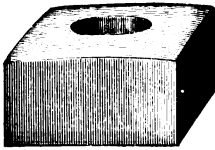
HENRY B. NEWHALL,

AGENT.

134437

Square Nuts.

Cold Punched and Hot Pressed.



MANUFACTURERS' STANDARD LIST.

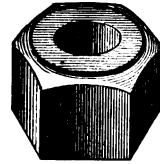
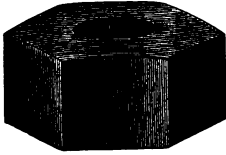
ADOPTED JULY 15, 1879.

Width.	Thickness.	Hole.	Size of Bolt.	Price per lb.	Number in 100 pounds.
$\frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{8}$	$\frac{1}{4}$	\$0.20	6,680
$\frac{5}{8}$	$\frac{5}{16}$	$\frac{3}{2}$	$\frac{5}{16}$	.17	3,540
$\frac{3}{4}$	$\frac{3}{8}$	$\frac{11}{8}$	$\frac{3}{8}$	.15	2,050
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{13}{8}$	$\frac{7}{8}$	.13 $\frac{1}{2}$	1,380
$\frac{7}{8}$	$\frac{1}{2}$	$\frac{7}{8}$	$\frac{1}{2}$		1,120
1	$\frac{1}{2}$	$\frac{7}{8}$	$\frac{1}{2}$	.12 $\frac{1}{2}$	840
$1\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$		650
$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{3}{2}$	$\frac{5}{8}$		580
$1\frac{1}{4}$	$\frac{5}{8}$	$\frac{3}{2}$	$\frac{5}{8}$	.12	440
$1\frac{3}{8}$	$\frac{3}{4}$	$\frac{3}{2}$	$\frac{3}{4}$		338
$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{2}$	$\frac{3}{4}$	.11 $\frac{1}{2}$	260
$1\frac{5}{8}$	$\frac{7}{8}$	$\frac{3}{2}$	$\frac{7}{8}$		185
$1\frac{3}{4}$	$\frac{7}{8}$	$\frac{3}{2}$	$\frac{7}{8}$		163
$1\frac{3}{4}$	1	$\frac{7}{8}$	1		139
2	1	$\frac{7}{8}$	1		103
2	$1\frac{1}{8}$	$1\frac{5}{8}$	$1\frac{1}{8}$		96
$2\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{5}{8}$	$1\frac{1}{8}$		85
$2\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{4}$	.12 $\frac{1}{2}$	64
$2\frac{1}{2}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{4}$		52
$2\frac{3}{4}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{3}{8}$		40
3	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{1}{2}$	.13	32
$3\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{7}{8}$	$1\frac{5}{8}$		26
$3\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{3}{2}$	$1\frac{3}{4}$	.14	21
$3\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{1}{2}$	$1\frac{7}{8}$		19
4	2	$1\frac{3}{2}$	2		14

Sizes not enumerated on above list will be charged extra, at discretion of the manufacturer.

Hexagon Nuts.

Cold Punched and Hot Pressed.



MANUFACTURERS' STANDARD LIST.

ADOPTED JULY 15, 1879.

Width.	Thickness.	Hole.	Size of Bolt.	Price per lb.	Number in 100 pounds.
$\frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{32}$	$\frac{1}{4}$	\$0.30	8,280
$\frac{5}{8}$	$\frac{5}{16}$	$\frac{9}{32}$	$\frac{5}{16}$	.25	4,440
$\frac{3}{4}$	$\frac{3}{8}$	$\frac{11}{32}$	$\frac{3}{8}$	.20	2,330
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{13}{32}$	$\frac{7}{8}$	.18	1,430
$\frac{7}{8}$	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{1}{2}$		1,330
1	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{1}{2}$	.16	1,010
$1\frac{1}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$		723
$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{9}{16}$	$\frac{5}{8}$		625
$1\frac{1}{4}$	$\frac{5}{8}$	$\frac{9}{16}$	$\frac{5}{8}$	.15	514
$1\frac{1}{4}$	$\frac{3}{4}$	$\frac{11}{16}$	$\frac{3}{4}$		376
$1\frac{3}{8}$	$\frac{3}{4}$	$\frac{11}{16}$	$\frac{3}{4}$		376
$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{11}{16}$	$\frac{3}{4}$		
$1\frac{1}{2}$	$\frac{7}{8}$	$\frac{11}{16}$	$\frac{7}{8}$		250
$1\frac{1}{2}$	$\frac{7}{8}$	$\frac{11}{16}$	$\frac{7}{8}$		213
$1\frac{3}{4}$	1	$\frac{11}{16}$	$\frac{7}{8}$	.14 $\frac{1}{2}$	197
$1\frac{3}{4}$	1	$\frac{11}{16}$	1		170
$1\frac{3}{4}$	$1\frac{1}{8}$	$\frac{7}{8}$	1		151
$1\frac{3}{4}$	$1\frac{1}{4}$	$\frac{11}{8}$	$1\frac{1}{8}$		100
2	$1\frac{1}{4}$	$\frac{11}{8}$	$1\frac{1}{8}$		
$2\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{8}$	$1\frac{1}{4}$	.15 $\frac{1}{2}$	72
$2\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{3}{8}$		54
$2\frac{3}{4}$	$1\frac{5}{8}$	$1\frac{5}{8}$	$1\frac{1}{2}$		41
$2\frac{3}{4}$	$1\frac{5}{8}$	$1\frac{5}{8}$	$1\frac{1}{2}$		
3	$1\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{5}{8}$	.16	37
$3\frac{1}{4}$	$1\frac{7}{8}$	$1\frac{7}{8}$	$1\frac{3}{4}$		30
$3\frac{1}{2}$	2	$1\frac{11}{8}$	$1\frac{7}{8}$	.17	20
$3\frac{1}{2}$	2	$1\frac{11}{8}$	2		15

Sizes not enumerated on above list will be charged extra, at discretion of the manufacturer.

Machinery Nuts.



CHAMFERED, TRIMMED, AND DRILLED.

We wish to call your attention to our Extra Trimmed Nuts for Machinery.

They are especially adapted for all kinds of machine work where strength and neat finish are required, and are made so smooth as to require but very little labor for the most highly finished work.

The holes are drilled, and always exactly in the centre, thus obviating a trouble which is often experienced where milling is necessary, and enabling the machinist to produce a thread perfectly smooth and full, and with the greatest ease in tapping.

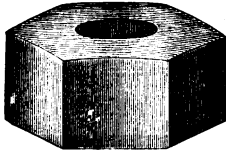
We usually keep in stock, Nuts of the U. S. Government and other standard sizes, and can make to order any sizes which may be required.

We will gladly furnish a sample lot to show the quality.

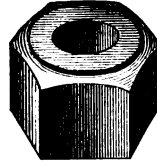
For Sizes and Prices, see following pages.

Light or "P" Sizes.

COLD
PUNCHED



OR HOT
PRESSED.



Short Diameter.	Thickness.	Hole.	Size of Bolt.	Price per Pound.	
				Square.	Hexagon.
$\frac{1}{8}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{8}$	\$0.50	\$0.75
$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	.30	.50
$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8}$	.20	.30
$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	.17	.25
$\frac{5}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	$\frac{5}{8}$	.15	.20
$\frac{3}{4}$	1	$\frac{7}{8}$	$\frac{3}{4}$	.13 $\frac{1}{2}$	.18
$\frac{7}{8}$	$1\frac{1}{8}$	1	$\frac{7}{8}$	.12 $\frac{1}{2}$	.16
1	$1\frac{1}{4}$	$1\frac{1}{8}$	1	.12 $\frac{1}{2}$	.16
$1\frac{1}{8}$	$1\frac{3}{8}$	$1\frac{1}{4}$	$1\frac{1}{8}$	.12	.15
$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{1}{4}$	.11 $\frac{1}{2}$	.14 $\frac{1}{2}$
$1\frac{3}{8}$	$1\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{3}{8}$	.11 $\frac{1}{2}$	.14 $\frac{1}{2}$
$1\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{5}{8}$	$1\frac{1}{2}$	.11 $\frac{1}{2}$	.14 $\frac{1}{2}$
$1\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{3}{4}$	$1\frac{3}{4}$	.12 $\frac{1}{2}$	.15 $\frac{1}{2}$
2	2	2	2	.12 $\frac{1}{2}$	.15 $\frac{1}{2}$

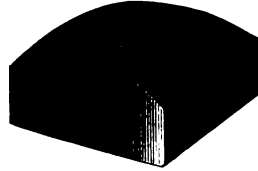
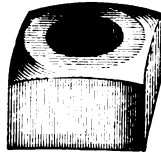
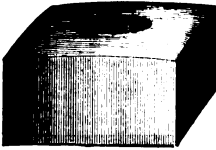
U. S. GOVERNMENT STANDARD SIZES.

Short Diameter.	Thickness.	Hole.	Size of Bolt.	Price per Pound.		Price per Pound.	
				Hot Press'd Square.	Hot Press'd Hexagon.	Cold P'ch'd Square.	Cold P'ch'd Hexagon.
$\frac{1}{8}$	$\frac{1}{4}$	.185 = $\frac{3}{16}$	$\frac{1}{8}$	\$0.20	\$0.30	\$0.25	\$0.35
$\frac{1}{4}$	$\frac{3}{8}$	.24 = $\frac{1}{2}$	$\frac{1}{4}$	.20	.30	.20	.30
$\frac{3}{8}$	$\frac{1}{2}$	.294 = $\frac{3}{8}$	$\frac{3}{8}$	.17	.24	.19	.28
$\frac{1}{2}$	$\frac{3}{4}$	.344 = $\frac{1}{2}$	$\frac{1}{2}$			.18	.24
$\frac{5}{8}$	$\frac{7}{8}$	.4 = $\frac{1}{2}$	$\frac{5}{8}$	.14	.19	.15 $\frac{1}{2}$	.20
$\frac{3}{4}$	1	.454 = $\frac{3}{4}$	$\frac{3}{4}$	.14	.19	.13 $\frac{1}{2}$	.19
1	$1\frac{1}{8}$	.507 = 1	1	.13	.17	.13 $\frac{1}{2}$	.18 $\frac{1}{2}$
$1\frac{1}{8}$	$1\frac{1}{4}$	.62 = $1\frac{1}{8}$	$1\frac{1}{8}$	.12 $\frac{1}{2}$	.16	.13	.16 $\frac{1}{2}$
$1\frac{1}{4}$	$1\frac{3}{8}$	.731 = $1\frac{1}{4}$	$1\frac{1}{4}$				
$1\frac{3}{8}$	$1\frac{1}{2}$	.837 = $1\frac{3}{8}$	$1\frac{3}{8}$	.12	.15	.12 $\frac{1}{2}$	.15 $\frac{1}{2}$
$1\frac{1}{2}$	$1\frac{5}{8}$	.94 = $1\frac{1}{2}$	$1\frac{1}{2}$				
2	$2\frac{1}{8}$	1.065 = 2	2	.13	.16	.13	.16
$2\frac{1}{8}$	$2\frac{3}{8}$	1.16 = $2\frac{1}{8}$	$2\frac{1}{8}$			.14	.16
$2\frac{3}{8}$	$2\frac{1}{2}$	1.284 = $2\frac{3}{8}$	$2\frac{3}{8}$	.14	.17	.14	.17
$2\frac{1}{2}$	$2\frac{5}{8}$	1.389 = $2\frac{1}{2}$	$2\frac{1}{2}$			.15 $\frac{1}{2}$	.17
$2\frac{5}{8}$	$2\frac{3}{4}$	1.491 = $2\frac{5}{8}$	$2\frac{5}{8}$				
$2\frac{3}{4}$	$2\frac{7}{8}$	1.616 = $2\frac{3}{4}$	$2\frac{3}{4}$	.15	.18	.15 $\frac{1}{2}$	.18 $\frac{1}{2}$
3	$3\frac{1}{8}$	1.712 = 3	3				
$3\frac{1}{8}$	$3\frac{1}{4}$	1.962 = $3\frac{1}{8}$	$3\frac{1}{8}$				

Square Nuts.

COLD PUNCHED AND MACHINE FORGED.

EXTRA SIZES.



COLD PUNCHED NUTS.

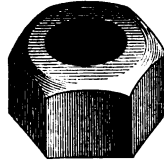
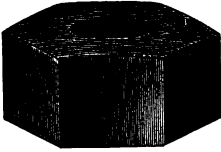
Width.	Thickness.	Hole.	Size of Bolt.	Price per Pound.
$\frac{5}{8}$	$\frac{1}{4}$	$\frac{17}{32}$	$\frac{5}{16}$	\$0.19
$\frac{11}{16}$	$\frac{5}{16}$	$\frac{21}{32}$	$\frac{3}{8}$	.19
$\frac{11}{16}$	$\frac{3}{8}$	$\frac{21}{32}$	$\frac{3}{8}$	.18
$\frac{11}{16}$	$\frac{3}{8}$	$\frac{21}{32}$	$\frac{3}{8}$	.16
$\frac{3}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	.15
$\frac{7}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	.15
$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{7}{8}$	.13 $\frac{1}{2}$
$\frac{7}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.15 $\frac{1}{2}$
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.14
1	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.14
1	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.13
1	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	.13
$1\frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{9}{16}$	.13
$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{13}{16}$	$\frac{5}{8}$	.12
$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{13}{16}$	$\frac{5}{8}$	.12
$1\frac{3}{8}$	$\frac{5}{8}$	$\frac{13}{16}$	$\frac{11}{16}$	.11 $\frac{1}{2}$
$1\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{2}$	$\frac{3}{4}$	.12
$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{2}$	$\frac{3}{4}$	.12
$1\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{2}$	$\frac{3}{4}$	.11 $\frac{1}{2}$
$1\frac{3}{4}$	$\frac{7}{8}$	$\frac{3}{2}$	$\frac{3}{4}$	.11 $\frac{1}{2}$
$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{2}$	$\frac{7}{8}$	.11 $\frac{1}{2}$
$1\frac{1}{2}$	$\frac{7}{8}$	$\frac{3}{2}$	$\frac{7}{8}$	.11 $\frac{1}{2}$
$1\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{2}$	$\frac{7}{8}$	.11 $\frac{1}{2}$
$2\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{4}$	.12 $\frac{1}{2}$
$2\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{3}{8}$	.12 $\frac{1}{2}$
$2\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{1}{2}$	.13

FORGED NUTS.

$\frac{7}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	\$0.22
$\frac{1}{2}$	$\frac{3}{8}$ or $\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	.21
$\frac{9}{16}$	$\frac{9}{16}$	$\frac{11}{16}$	$\frac{5}{16}$	.18
$\frac{11}{16}$	$\frac{5}{16}$ or $\frac{3}{8}$	$\frac{11}{16}$	$\frac{3}{8}$	.16
$\frac{3}{4}$	$\frac{5}{16}$	$\frac{11}{16}$	$\frac{3}{8}$	.15
$\frac{13}{16}$	$\frac{3}{8}$ or $\frac{7}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	.14 $\frac{1}{2}$
$\frac{7}{8}$	$\frac{3}{8}$ or $\frac{7}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	.14 $\frac{1}{2}$
1	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.12

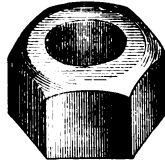
Hexagon Nuts.

COLD PUNCHED.

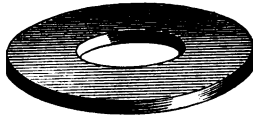


EXTRA SIZES.

Width.	Thickness.	Hole.	Bolt.	Price per Pound.	
				Plain.	Cupped.
$\frac{9}{16}$	$\frac{5}{16}$	$\frac{17}{32}$	$\frac{5}{16}$	\$0.28	\$0.32
$\frac{5}{8}$	$\frac{3}{8}$	$\frac{21}{32}$	$\frac{3}{8}$	.25	.30
$\frac{3}{4}$	$\frac{5}{8}$	$\frac{21}{32}$	$\frac{3}{8}$	.24	.28
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{21}{32}$	$\frac{3}{8}$	.20	.24
$\frac{3}{4}$	$\frac{7}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	.20	.24
$\frac{7}{8}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.20	.23
$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	.19	.22
1	$\frac{9}{16}$	$\frac{7}{8}$	$\frac{1}{2}$	.18	.20
1	$\frac{9}{16}$	$\frac{7}{8}$	$\frac{1}{2}$	.17	.19
$\frac{7}{8}$	$\frac{9}{16}$	$\frac{13}{32}$	$\frac{1}{2}$	.19	.22
$\frac{7}{8}$	$\frac{9}{16}$	$\frac{13}{32}$	$\frac{1}{2}$	.19	.22
$\frac{7}{8}$	$\frac{3}{4}$	$\frac{13}{32}$	$\frac{1}{2}$	.18	.20
1	$\frac{9}{16}$	$\frac{15}{32}$	$\frac{9}{16}$	.18	.20
$1\frac{1}{8}$	$\frac{9}{16}$	$\frac{33}{64}$	$\frac{5}{8}$	.18	.19
$1\frac{1}{8}$	$\frac{3}{4}$	$\frac{33}{64}$	$\frac{5}{8}$	.17	.19
$1\frac{1}{8}$	$\frac{3}{4}$	$\frac{33}{64}$	$\frac{5}{8}$	.17	.18
$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{17}{32}$	$\frac{5}{8}$	.16	.18
$1\frac{1}{8}$	$\frac{3}{4}$	$\frac{17}{32}$	$\frac{5}{8}$	.16	.17
$1\frac{1}{8}$	$\frac{7}{8}$	$\frac{17}{32}$	$\frac{5}{8}$	.16	.17
$1\frac{1}{4}$	$\frac{3}{4}$	$\frac{19}{32}$	$1\frac{1}{8}$	.15	.17
$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	.16	.18
$1\frac{1}{4}$	$\frac{1}{2}$	$\frac{31}{32}$	$\frac{3}{4}$	.16	.18
$1\frac{1}{4}$	$\frac{5}{8}$	$\frac{21}{32}$	$\frac{3}{4}$	.15	.17
$1\frac{1}{4}$	$\frac{5}{8}$	$\frac{45}{64}$	$\frac{3}{4}$	.15	.16
$1\frac{1}{4}$	$\frac{7}{8}$	$\frac{45}{64}$	$\frac{3}{4}$	.15	.16
$1\frac{1}{4}$	$\frac{7}{8}$	$\frac{21}{32}$	$\frac{3}{4}$	.15	.16
$1\frac{1}{4}$	1	$\frac{45}{64}$	$\frac{3}{4}$	.15	.16
$1\frac{3}{8}$	$\frac{7}{8}$	$\frac{21}{32}$	$\frac{3}{4}$	.15	.16
$1\frac{3}{8}$	$\frac{7}{8}$	$\frac{45}{64}$	$\frac{3}{4}$	.15	.16
$1\frac{3}{8}$	1	$\frac{45}{64}$	$\frac{3}{4}$	.15	.16
$1\frac{3}{8}$	1	$\frac{21}{32}$	$\frac{3}{4}$	.15	.16

[illegible]

Washers.



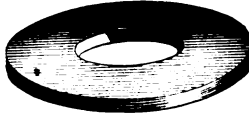
MANUFACTURERS' STANDARD LIST.

ADOPTED JULY 15, 1879.

Diameter.	Size of Hole.	Thickness Wire Gauge.	Size of Bolt.	Price per lb.	No. in 100 lbs.
$\frac{1}{2}$	$\frac{1}{4}$	No. 18	$\frac{3}{8}$	\$0.25	53,334
$\frac{5}{8}$	$\frac{1}{8}$	" 16	$\frac{1}{4}$	.22	22,857
$\frac{3}{4}$	$\frac{5}{8}$	" 16	$\frac{1}{4}$	.19	14,667
$\frac{7}{8}$	$\frac{3}{8}$	" 16	$\frac{5}{16}$	.17	12,333
1	$\frac{7}{8}$	" 14	$\frac{3}{8}$	.15	7,034
$1\frac{1}{8}$	$\frac{1}{2}$	" 14	$\frac{7}{8}$		
$1\frac{1}{4}$	$\frac{1}{2}$	" 14	$\frac{7}{8}$	.13	5,000
$1\frac{3}{8}$	$\frac{9}{16}$	" 12	$\frac{1}{2}$		
$1\frac{1}{2}$	$\frac{5}{8}$	" 12	$\frac{9}{16}$	.12 $\frac{1}{2}$	1,281
$1\frac{3}{4}$	$\frac{11}{16}$	" 10	$\frac{5}{8}$		1,667
2	$\frac{13}{16}$	" 10	$\frac{3}{4}$		1,066
$2\frac{1}{4}$	$\frac{15}{16}$	" 9	$\frac{7}{8}$		867
$2\frac{1}{2}$	$1\frac{1}{8}$	" 9	1		634
$2\frac{3}{4}$	$1\frac{1}{4}$	" 9	$1\frac{1}{8}$		467
3	$1\frac{3}{8}$	" 9	$1\frac{1}{4}$		367
$3\frac{1}{2}$	$1\frac{1}{2}$	" 8	$1\frac{3}{8}$	.13 $\frac{1}{2}$	300
$3\frac{3}{4}$	$1\frac{5}{8}$	" 8	$1\frac{1}{2}$		
4	$1\frac{7}{8}$	" 8	$1\frac{3}{4}$		
$4\frac{1}{2}$	2	" 8	2		

Washers of irregular sizes, made to order, will be charged extra, at discretion of the manufacturer.

Washers.



IN KEGS OF 150 POUNDS EACH.

Extra Sizes.

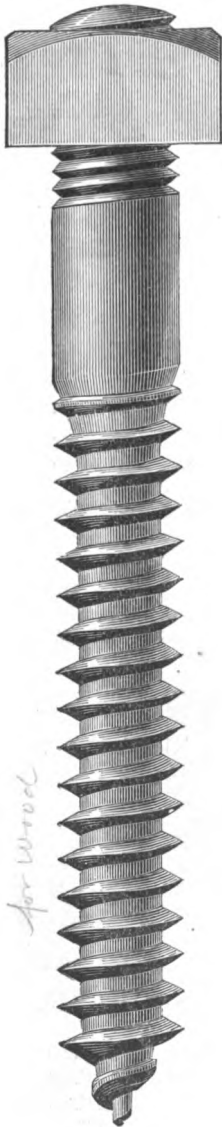
Diameter.	Size of Hole.	Thickness Wire Gauge.	Size of Bolt.	Price per lb.	No. of Washers in a Keg.
$\frac{1}{2}$	$\frac{3}{8}$	No. 18	$\frac{1}{8}$	\$0.28	63,000
$\frac{1}{2}$	$\frac{1}{4}$	" 18	$\frac{3}{8}$		73,000
$\frac{5}{8}$	$\frac{1}{4}$	" 16	$\frac{3}{8}$	.24	33,000
$\frac{5}{8}$	$\frac{5}{8}$	" 16	$\frac{1}{4}$		34,280
$\frac{3}{4}$	$\frac{5}{8}$	" 15	$\frac{1}{4}$	.21	19,000
$\frac{3}{4}$	$\frac{3}{8}$	" 15	$\frac{5}{8}$	.23	21,240
$\frac{7}{8}$	$\frac{3}{8}$	" 14	$\frac{5}{8}$	.20	24,000
$\frac{7}{8}$	$\frac{7}{8}$	" 14	$\frac{3}{4}$		25,000
1	$\frac{7}{8}$	" 13	$\frac{3}{4}$	.16	10,000
1	$\frac{1}{2}$	" 13	$\frac{7}{8}$	.17	18,500
$1\frac{1}{8}$	$\frac{1}{2}$	" 13	$\frac{7}{8}$	.16	16,670
$1\frac{1}{4}$	$\frac{3}{8}$	" 12	$\frac{1}{2}$	.15	5,220
$1\frac{3}{8}$	$\frac{5}{8}$	" 12	$\frac{5}{8}$	.15	4,000
$1\frac{1}{2}$	$\frac{1}{2}$	" 11	$\frac{3}{4}$	.14	3,580
$1\frac{3}{4}$	$\frac{3}{4}$	" 11	$\frac{1}{2}$	.14	2,000
$1\frac{3}{4}$	$\frac{3}{8}$	" 10	$\frac{3}{4}$	.14	2,210
2	$\frac{7}{8}$	" 10	$\frac{1}{2}$	.14	1,550
2	$\frac{1}{2}$	" 9	$\frac{7}{8}$	.14	1,445
2	1	" 9	$\frac{7}{8}$	.14	1,640
$2\frac{1}{4}$	$1\frac{1}{8}$	" 8	1	.14	1,180
$2\frac{1}{4}$	$1\frac{1}{8}$	" 8	1	.14	1,160
$2\frac{1}{2}$	$1\frac{1}{4}$	" 8	$1\frac{1}{8}$	.14	800
$2\frac{3}{4}$	$1\frac{3}{8}$	" 7	$1\frac{1}{4}$	.14	690
3	$1\frac{1}{2}$	" 7	$1\frac{3}{8}$	.14	560
$3\frac{1}{2}$	$1\frac{5}{8}$	" 6	$1\frac{1}{2}$	.14	270
4	$1\frac{3}{4}$	" 5	$1\frac{1}{2}$	.14	250
4	2	" 4	$1\frac{3}{4}$	.14	225

These Washers are made from iron expressly adapted for the purpose, and not from scrap iron, making them very desirable, being uniform in thickness.

In ordering Washers, always give diameter of bolt and also of hole.

Holes in Washers should be $\frac{1}{8}$ larger than the bolt for which they are intended.

Hanger Bolts.



Diameter.	Length.	Per Pound.
$\frac{5}{8}$	5 to 7 in.	\$0.14
$\frac{3}{4}$	6 to 8 in.	.14
$\frac{7}{8}$	7 to 9 in.	.14
1	8 to 12 in.	.14

Any size made to order. Hexagon Heads
10 per cent. extra.

Bridge and Roof Bolts.

1 to 2 inches diameter, over 8 feet long.

1 to 2 inches diameter, from 4 to 8 feet long.

1 to 2 inches diameter, from $1\frac{1}{2}$ to 4 feet long.

$\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ inch diameter, over 4 feet long.

$\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ inch diameter, from $1\frac{1}{2}$ to 4 feet long.

Net prices will be given upon application.

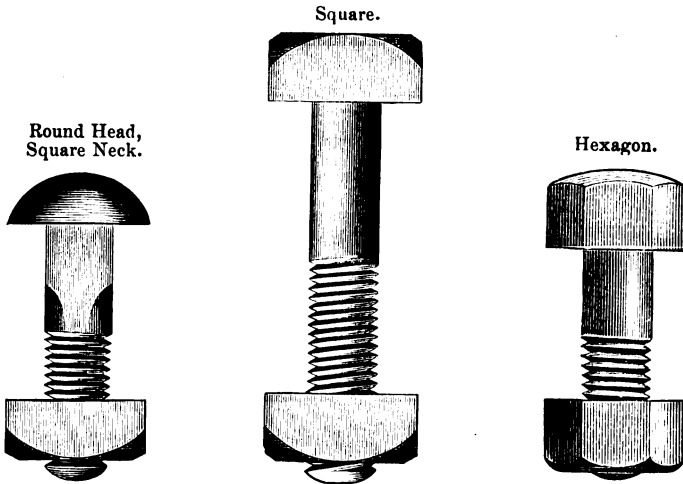


Cast Iron Washers.

5 cents per pound.

Machine Bolts.

With Square Heads and Nuts. Finished Points.



MANUFACTURERS' STANDARD LIST.

ADOPTED JULY 15, 1879.

PRICE PER HUNDRED.

Length.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
1 $\frac{1}{2}$	\$2.80	\$3.20	\$3.60	\$4.60	\$5.00	\$7.20	\$10.50	\$14.90	\$22.00
2	2.90	3.35	3.80	4.90	5.30	7.70	11.10	15.80	23.10
2 $\frac{1}{2}$	3.00	3.50	4.00	5.20	5.60	8.20	11.70	16.60	24.20
3	3.10	3.65	4.20	5.50	5.90	8.70	12.30	17.50	25.30
3 $\frac{1}{2}$	3.20	3.80	4.40	5.80	6.20	9.20	12.90	18.30	26.40
4	3.30	3.95	4.60	6.10	6.50	9.70	13.50	19.20	27.50
4 $\frac{1}{2}$	3.40	4.10	4.80	6.40	6.80	10.20	14.10	20.00	28.60
5	3.50	4.25	5.00	6.70	7.10	10.70	14.70	20.90	29.70
5 $\frac{1}{2}$	3.60	4.40	5.20	7.00	7.40	11.20	15.30	21.70	30.80
6	3.70	4.55	5.40	7.30	7.70	11.70	15.90	22.60	31.90
6 $\frac{1}{2}$	3.80	4.70	5.60	7.60	8.00	12.20	16.50	23.40	33.00
7	3.90	4.85	5.80	7.90	8.30	12.70	17.10	24.30	34.10
7 $\frac{1}{2}$	4.00	5.00	6.00	8.20	8.60	13.20	17.70	25.10	35.20
8	4.10	5.15	6.20	8.50	8.90	13.70	18.30	26.00	36.30
9	-	-	6.60	9.10	9.50	14.75	19.50	27.70	38.50
10	-	-	7.00	9.70	10.10	15.75	20.70	29.40	40.70
11	-	-	7.40	10.30	10.70	16.75	21.90	31.10	42.90
12	-	-	7.80	10.90	11.30	17.75	23.10	32.80	45.10
13	-	-	-	-	11.90	18.75	24.30	34.50	47.30
14	-	-	-	-	12.50	19.75	25.50	36.20	49.50
15	-	-	-	-	13.10	20.75	26.70	37.90	51.70
16	-	-	-	-	13.70	21.75	27.90	39.60	53.90
17	-	-	-	-	14.30	22.75	29.10	41.30	56.10
18	-	-	-	-	14.90	23.75	30.30	43.00	58.30
19	-	-	-	-	15.50	24.75	31.50	44.70	60.50
20	-	-	-	-	16.10	25.75	32.70	46.40	62.70

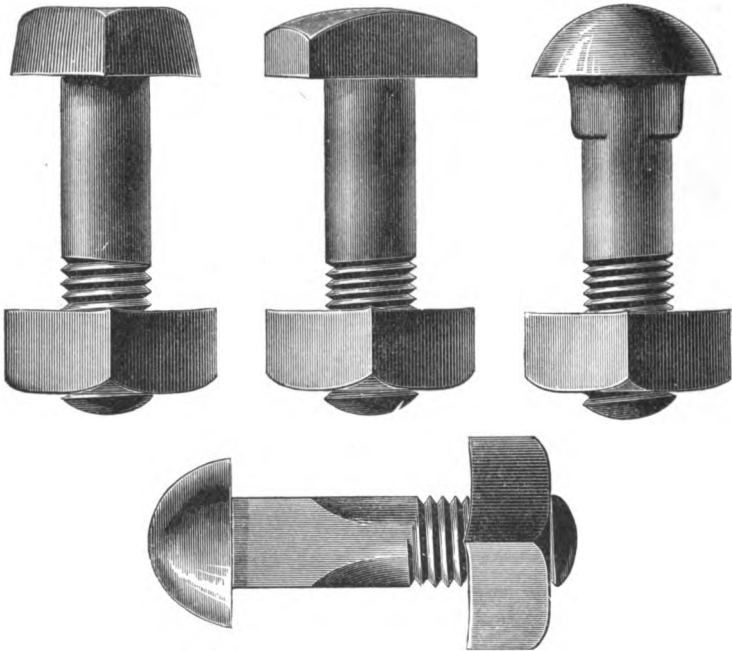
Bolts with Hexagon Heads or Hexagon Nuts, 10 per cent. extra.

If both Hexagon Heads and Hexagon Nuts, 20 per cent. extra.

Bolts with square necks charged extra.

Bolts of irregular shape or style, made to order, will be charged extra at our discretion.

Railroad Track Bolts.



Made of any form or style of head required. All bolts pointed.
Prices given on application.

Crow Bars.



Best Cast Steel Points. Weight from 10 lbs. to 60 lbs. each, 7 cts. lb.
Solid Cast Steel Bars. Weight from 6 lbs. to 9 lbs. each, 14 cts. lb.
Solid Cast Steel Bars. Weight from 10 lbs. to 25 lbs. each, 13 cts. lb.

Claw and Pinch Bars.



Best Cast Steel Points, 12 cts. lb. Made to order, any weight desired.

Plow Bolts.



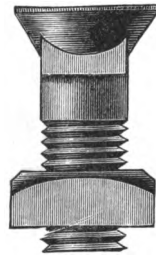
No. 1.



No. 2.



No. 3.



No. 4.

With right or left hand thread, as may be ordered.

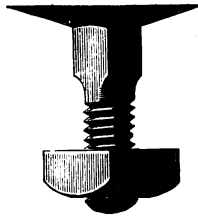
PRICE PER HUNDRED.

Length.	5-16 inch.	8-8 inch.	7-16 inch.	1-2 inch.	9-16 inch.	5-8 inch.
1½	\$1.70	\$2.00	\$2.60	\$3.50	\$4.50	\$5.70
1¾	1.80	2.10	2.75	3.70	4.75	6.00
1½	1.90	2.20	2.90	3.90	5.00	6.30
2	2.00	2.30	3.05	4.10	5.25	6.60
2½	2.10	2.40	3.20	4.30	5.50	6.90
2¾	2.20	2.50	3.35	4.50	5.75	7.20
2½	2.30	2.60	3.50	4.70	6.00	7.50
3	2.40	2.70	3.65	4.90	6.25	7.80
3½	—	2.80	3.80	5.10	6.50	8.10
3¾	—	2.90	3.95	5.30	6.75	8.40
3½	—	3.00	4.10	5.50	7.00	8.70
4	—	3.10	4.25	5.70	7.25	9.00

Price in bulk, 5-16 inch, per pound

Price in bulk, 3-8, 7-16, 1-2 inch, per pound

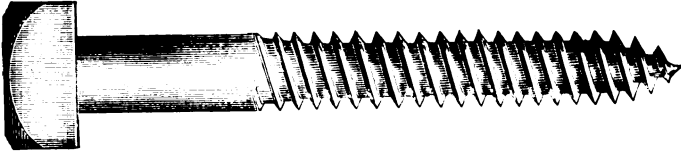
Elevator Bolts.



For Bolting Buckets to Grain Elevators.

MALLEABLE IRON.		WROUGHT IRON.		WROUGHT IRON.	
3-16 inch.		3-16 and 1-4 inch.		5-16 inch.	
	Per 100		Per 100		Per 100
¾ inch . . .	\$1.50	¾ inch . . .	\$2.20	1 inch . . .	\$3.00
1 inch . . .	1.50	1 inch . . .	2.20	1½ inch . . .	3.00

Gimlet-Point Coach Screws.



MANUFACTURERS' STANDARD LIST.

PRICE PER HUNDRED.

Length.	$\frac{1}{4}$ & $\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
1 $\frac{1}{2}$	\$2.70	\$3.10	\$4.00	\$4.30	—	—	—	—
2	2.90	3.30	4.25	4.60	\$6.50	—	—	—
2 $\frac{1}{2}$	3.10	3.50	4.50	4.90	6.90	\$10.00	—	—
3	3.30	3.70	4.75	5.20	7.30	10.50	\$15.00	—
3 $\frac{1}{2}$	3.50	3.90	5.00	5.50	7.70	11.00	15.75	\$21.60
4	3.70	4.10	5.25	5.80	8.10	11.50	16.50	22.50
4 $\frac{1}{2}$	3.90	4.30	5.50	6.10	8.50	12.00	17.25	23.40
5	4.10	4.50	5.75	6.40	8.90	12.50	18.00	24.25
5 $\frac{1}{2}$	4.30	4.70	6.00	6.70	9.30	13.00	18.75	25.25
6	4.50	4.90	6.25	7.00	9.70	13.50	19.50	26.25
7	—	—	6.75	7.60	10.50	14.50	21.00	28.25
8	—	—	7.25	8.20	11.30	15.50	22.50	30.25
9	—	—	7.75	8.80	12.10	16.50	24.00	32.25
10	—	—	—	9.40	12.90	17.50	25.50	34.25
11	—	—	—	10.00	13.70	18.50	27.00	36.25
12	—	—	—	10.60	14.50	19.50	28.50	38.25

Wood or Lag Screws.

WITH SQUARE HEADS.



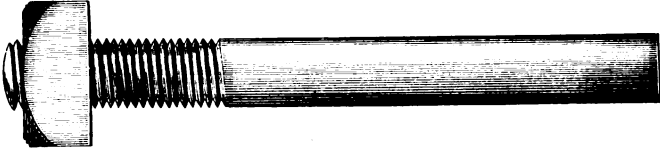
MANUFACTURERS' STANDARD LIST.

ADOPTED JULY 15, 1879.

PRICE PER HUNDRED.

Length.	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	1	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
$1\frac{1}{2}$	\$2.70	\$3.10	\$4.00	\$4.30	—	—	—	—
2	2.90	3.30	4.25	4.60	\$6.50	—	—	—
$2\frac{1}{2}$	3.10	3.50	4.50	4.90	6.90	\$10.00	—	—
3	3.30	3.70	4.75	5.20	7.30	10.50	\$15.00	—
$3\frac{1}{2}$	3.50	3.90	5.00	5.50	7.70	11.00	15.75	\$21.60
4	3.70	4.10	5.25	5.80	8.10	11.50	16.50	22.50
$4\frac{1}{2}$	3.90	4.30	5.50	6.10	8.50	12.00	17.25	23.40
5	4.10	4.50	5.75	6.40	8.90	12.50	18.00	24.25
$5\frac{1}{2}$	4.30	4.70	6.00	6.70	9.30	13.00	18.75	25.25
6	4.50	4.90	6.25	7.00	9.70	13.50	19.50	26.25
7	—	—	6.75	7.60	10.50	14.50	21.00	28.25
8	—	—	7.25	8.20	11.30	15.50	22.50	30.25
9	—	—	7.75	8.80	12.10	16.50	24.00	32.25
10	—	—	—	9.40	12.90	17.50	25.50	34.25
11	—	—	—	10.00	13.70	18.50	27.00	36.25
12	—	—	—	10.60	14.50	19.50	28.50	38.25

Bolt Ends, WITH SQUARE NUTS.



MANUFACTURERS' STANDARD LIST.

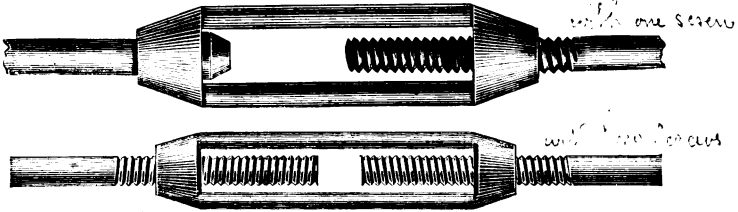
* ADOPTED JULY 15, 1879.

Size of Iron .	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2
Length . . .	6	7	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Price per lb. .	28	24	20	16	14	12			14			16				

Special lengths, or larger and smaller sizes, made to order, and charged extra at discretion of manufacturers.

Union-joint (for tension)

Turn Buckles. *in Screw-Shackles*



MANUFACTURERS' STANDARD LIST.

Size.	Price.	Size.	Price per lb.
$\frac{1}{8}$ inch . . .	\$1.00 each.	1 inch . . .	\$0.17
$\frac{3}{8}$ inch . . .	1.25 each.	$1\frac{1}{8}$ inch . . .	.17
$\frac{1}{2}$ inch . . .	.20 per lb.	$1\frac{1}{4}$ inch . . .	.16
$\frac{3}{4}$ inch . . .	.18 per lb.	$1\frac{1}{2}$ inch . . .	.16

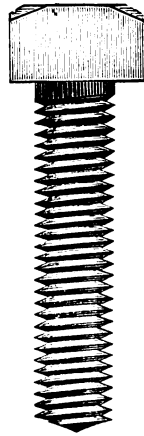
Larger sizes made to order.

Please observe in ordering that these Turn Buckles are made Right and Left Hand Threads. The sizes given are diameters at bottom of thread, thus making the buckle equal in strength to the rod for which it is intended.

Swivel Turn Buckles, like first cut above, made only to order.

FORGED

Set Screws and Tap Bolts.



MANUFACTURERS' STANDARD LIST.

ADOPTED JULY 15, 1879.

PRICE PER HUNDRED.

Length.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{3}{4}$
$1\frac{1}{2}$	\$2.50	\$2.80	\$3.30	\$3.90	\$4.50	6.60	\$8.90
$1\frac{3}{4}$	2.60	2.90	3.40	4.00	4.70	6.80	9.20
2	2.70	3.00	3.50	4.10	4.90	7.00	9.50
$2\frac{1}{4}$	2.80	3.10	3.60	4.20	5.10	7.20	9.80
$2\frac{1}{2}$	2.90	3.20	3.70	4.30	5.30	7.40	10.10
$2\frac{3}{4}$	3.00	3.30	3.80	4.40	5.50	7.60	10.40
3	3.10	3.40	3.90	4.50	5.70	7.80	10.70

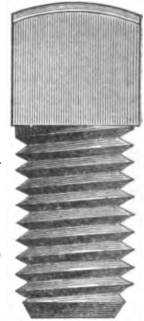
Set Screws or Tap Bolts with Hexagon Heads, 10 per cent. extra.

Square Head Set Screws.

PRICE PER HUNDRED.



No. Thread to Inch Diameter Screw .	20 1-4	18 5-16	16 3-8	14 7-16	12 1-2	12 9-16	11 5-8	10 3-4
Length under H'd.								
$\frac{3}{4}$ inch .	2 00	2 20	2 50	2 90	3 40	-	-	-
1 inch .	2 15	2 35	2 65	3 10	3 60	4 25	-	-
$1\frac{1}{4}$ inch .	2 30	2 50	2 80	3 30	3 80	4 50	5 25	-
$1\frac{1}{2}$ inch .	2 45	2 65	2 95	3 50	4 00	4 75	5 50	7 50
$1\frac{3}{4}$ inch .	2 60	2 80	3 10	3 70	4 20	5 00	5 75	8 00
2 inches .	2 75	2 95	3 25	3 90	4 40	5 25	6 00	8 50
$2\frac{1}{4}$ inches .	-	3 10	3 40	4 10	4 60	5 50	6 25	9 00
$2\frac{1}{2}$ inches .	-	-	3 55	4 30	4 80	5 75	6 50	9 50
$2\frac{3}{4}$ inches .	-	-	-	4 50	5 00	6 00	6 75	10 00
3 inches .	-	-	-	-	5 20	6 25	7 00	10 50



Cup Point Set Screw.

Oval Point Set Steel Set Screws _____ per cent. added to above list.
Screw.

Square Head Cap Screws.

PRICE PER HUNDRED.



Diameter Head .	3-8	7-16	1-2	9-16	5-8	11-16	3-4	7-8
Length Head . .	5-16	3-8	7-16	9-16	5-8	11-16	3-4	7-8
No. Thread to Inch	20	18	16	14	12	12	11	10
Diameter Screw .	1-4	5-16	3-8	7-16	1-2	9-16	5-8	3-4
Length under H'd.								
$\frac{3}{4}$ inch .	2 20	2 50	2 90	3 40	4 00	-	-	-
1 inch .	2 35	2 65	3 10	3 60	4 25	5 00	-	-
$1\frac{1}{4}$ inch .	2 50	2 80	3 30	3 80	4 50	5 25	7 00	-
$1\frac{1}{2}$ inch .	2 65	2 95	3 50	4 00	4 75	5 50	7 50	9 50
$1\frac{3}{4}$ inch .	2 80	3 10	3 70	4 20	5 00	5 75	8 00	10 00
2 inches .	2 95	3 25	3 90	4 40	5 25	6 00	8 50	10 50
$2\frac{1}{4}$ inches .	-	3 40	4 10	4 60	5 50	6 25	9 00	11 00
$2\frac{1}{2}$ inches .	-	-	4 30	4 80	5 75	6 50	9 50	11 50
$2\frac{3}{4}$ inches .	-	-	-	5 00	6 00	6 75	10 00	12 00
3 inches .	-	-	-	-	6 25	7 00	10 50	12 50



Cap Screw.

Cap Screw.

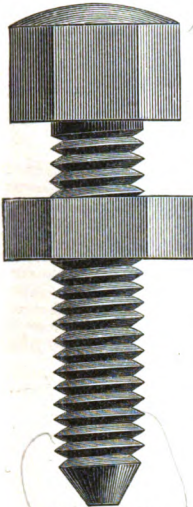
In ordering Set Screws, please state if you wish them with Oval or Cup Points. Also, if Case Hardened or not.

N. B. We wish to call the attention of Machine Manufacturers to our Case Hardened Screws, by new process, which we consider as good as Steel, being made from superior quality of Iron and thoroughly hardened.

Case Hardening, 10 per cent. extra.

Hexagon Head Cap Screws.

PRICE PER HUNDRED.



Hanger Screw.

No. Thread to Inch	18	16	14	12	12	11	10
Diam. Screw	5-16	3-8	7-16	1-2	9-16	5-8	3-4
Length und. Hd.							
$\frac{3}{4}$ inch	3 25	3 75	4 40	5 30	—	—	—
1 inch	3 50	4 00	4 70	5 60	7 00	—	—
$1\frac{1}{4}$ inch	3 75	4 25	5 00	5 90	7 50	9 50	—
$1\frac{1}{2}$ inch	4 00	4 50	5 30	6 20	8 00	10 00	12 00
$1\frac{3}{4}$ inch	4 25	4 75	5 60	6 50	8 50	10 50	12 50
2 inches	4 50	5 00	5 90	6 80	9 00	11 00	13 00
$2\frac{1}{4}$ inches	4 75	5 25	6 20	7 10	9 50	11 50	13 50
$2\frac{1}{2}$ inches	—	5 50	6 50	7 40	10 00	12 00	14 00
$2\frac{3}{4}$ inches	—	—	6 80	7 70	10 50	12 50	14 50
3 inches	—	—	—	8 00	11 00	13 00	15 00



Hexagon Head Cap Screw.

Round Head Set or Cap Screws.

PRICE PER HUNDRED.

Diameter Head	3-16	9-32	11-32	15-32	19-32	23-32	13-16	7-8	15-16	15-16
Length Head	1-8	5-32	3-16	1-4	5-16	7-16	1-2	9-16	5-8	3-4
No. Thr'd to In.	40	30	20	18	16	14	12	12	11	10
Diam. Screw	1-8	3-16	1-4	5-16	3-8	7-16	1-2	9-16	5-8	3-4
Length und. Hd.										
$\frac{3}{4}$ inch	2 00	2 25	2 50	3 00	3 50	4 00	5 00	—	—	—
1 inch	2 25	2 50	2 75	3 25	3 75	4 25	5 30	6 60	—	—
$1\frac{1}{4}$ inch	2 50	2 75	3 00	3 50	4 00	4 50	5 60	6 90	9 00	—
$1\frac{1}{2}$ inch	2 75	3 00	3 25	3 75	4 25	4 75	5 90	7 20	9 50	12 00
$1\frac{3}{4}$ inch	—	3 25	3 50	4 00	4 50	5 00	6 20	7 50	10 00	12 50
2 inches	—	—	3 75	4 25	4 75	5 25	6 50	7 80	10 50	13 00
$2\frac{1}{4}$ inches	—	—	—	4 50	5 00	5 50	6 80	8 10	11 00	13 50
$2\frac{1}{2}$ inches	—	—	—	—	5 25	5 75	7 10	8 40	11 50	14 00
$2\frac{3}{4}$ inches	—	—	—	—	—	6 00	7 40	8 70	12 00	14 05
3 inches	—	—	—	—	—	—	7 70	9 00	12 50	15 00



Round Countersunk Head Screw.

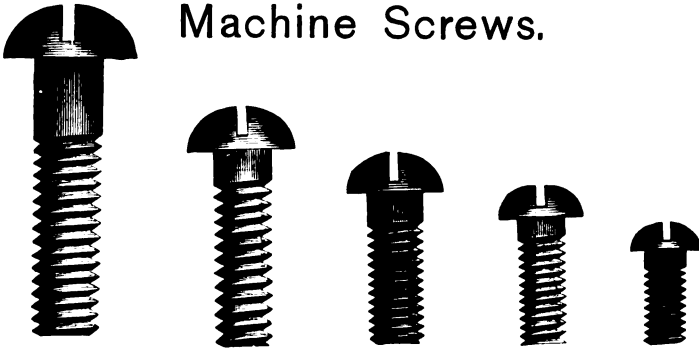
Finished Heads from 50 cents to \$2.00 per hundred extra.

All Screws included in these Lists are turned or milled from the bar, it being the only practical way of making Screws of this description. Every description of Milled Machine Screws, up to seven-eighths in diameter and five inches in length, made to order at short notice. Prices for sizes not on this list furnished on application.



Round Head Cap Screw.

Machine Screws.



PRICE PER GROSS.

Threads per Inch . . .	32	30 or 32	24	24	20	16 or 18		16	
Numbers	6	8	10	12	14	16	18	20	24
Diameter	-	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
Length of Screw.									
$\frac{1}{8}$ inch	\$0.21	\$0.26	\$0.31	-	-	-	-	-	-
$\frac{1}{4}$ inch	.21	.26	.31	\$0.37	\$0.48	\$0.64	-	-	-
$\frac{3}{8}$ inch	-	.29	.33	.37	.48	.64	\$0.84	\$1.16	-
$\frac{1}{2}$ inch	-	.30	.34	.38	.48	.64	.84	1.16	-
$\frac{5}{8}$ inch	-	-	.35	.41	.50	.65	.84	1.16	-
1 inch	-	-	.37	.43	.53	.68	.84	1.16	\$1.85
$1\frac{1}{4}$ inch	-	-	-	.50	.61	.80	.94	1.20	1.85
$1\frac{1}{2}$ inch	-	-	-	-	.70	.88	1.05	1.26	1.85

Machine Screws made to order, differing in length, size, thread, or head, from our regular standard Flat and Round Head Machine Screws, are subject to extra charge when ordered in small quantities.

BRASS MACHINE SCREWS.

$\frac{1}{8}$ inch	\$0.68	\$0.79	\$0.95	-	-	-	-	-	-
$\frac{1}{4}$ inch	.68	.79	.95	\$1.20	\$1.55	\$2.10	-	-	-
$\frac{3}{8}$ inch	-	.80	.96	1.20	1.55	2.10	\$2.75	\$3.50	-
$\frac{1}{2}$ inch	-	.82	.99	1.20	1.55	2.10	2.75	3.50	-
$\frac{5}{8}$ inch	-	-	1.04	1.30	1.78	2.30	2.75	3.50	-
1 inch	-	-	1.15	1.45	1.83	2.35	2.75	3.50	\$7.50
$1\frac{1}{4}$ inch	-	-	-	1.75	2.15	2.55	3.00	3.50	7.50
$1\frac{1}{2}$ inch	-	-	-	-	2.42	3.10	4.00	5.20	7.50

MACHINE SCREW TAPS.

Size of Screw Gauge.	No. Threads per Inch.			Price per Dozen.
No. 4	32,	36,	40	\$4.50
No. 6	30,	32,		4.50
No. 8	24,	30,	32	4.50
No. 10	24,	30,	32	4.50
No. 12	20,	24,		4.50
No. 14	20,	24,		5.00
No. 16	16,	18,	20	5.00
No. 18	16,	18,		5.00
No. 20	16,	18,		6.00
No. 24	16,	18,		6.00

Special sizes and threads made to order at short notice, at special prices.
All Machine Screws cut with a Solid Die, and warranted uniform in size.
Prices for sizes not on this List furnished on application.

Carriage Bolts.



MADE FROM CHARCOAL IRON,
WITH
FORGED NUTS AND OVAL HEADS.
STANDARD PRICE LIST.

PRICE PER HUNDRED.

LENGTH.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{3}{4}$
1 and $1\frac{1}{4}$ inch	\$2.40	—	—	—	—	—	—
$1\frac{1}{2}$ inch . .	2.40	\$3.00	—	—	—	—	—
$1\frac{3}{4}$ inch . .	2.45	3.10	—	—	—	—	—
2 inches . .	2.50	3.20	\$4.00	\$6.00	\$7.25	—	—
$2\frac{1}{4}$ inches . .	2.55	3.30	4.15	6.20	7.50	—	—
$2\frac{1}{2}$ inches . .	2.60	3.40	4.30	6.40	7.75	—	—
$2\frac{3}{4}$ inches . .	2.65	3.50	4.45	6.60	8.00	—	—
3 inches . .	2.70	3.60	4.60	6.80	8.25	\$15.00	\$17.20
$3\frac{1}{4}$ inches . .	2.75	3.70	4.75	7.00	8.50	15.40	17.90
$3\frac{1}{2}$ inches . .	2.80	3.80	4.90	7.20	8.75	15.80	18.60
$3\frac{3}{4}$ inches . .	2.85	3.90	5.05	7.40	9.00	16.20	19.60
4 inches . .	2.90	4.00	5.20	7.60	9.25	16.60	20.00
$4\frac{1}{4}$ inches . .	2.95	4.10	5.35	7.80	9.50	17.00	—
$4\frac{1}{2}$ inches . .	3.00	4.20	5.50	8.00	9.75	17.40	21.50
$4\frac{3}{4}$ inches . .	3.05	4.30	5.65	8.20	10.00	17.80	—
5 inches . .	3.10	4.40	5.80	8.40	10.25	18.20	22.25
$5\frac{1}{4}$ inches . .	3.20	4.60	6.10	8.80	10.75	19.00	22.75
6 inches . .	3.30	4.80	6.40	9.20	11.25	19.80	23.00
$6\frac{1}{4}$ inches . .	3.40	5.00	6.70	9.60	11.75	20.60	24.50
7 inches . .	3.50	5.20	7.00	10.00	12.25	21.40	26.00
$7\frac{1}{4}$ inches . .	—	5.40	7.30	10.40	12.75	22.20	27.50
8 inches . .	—	5.60	7.60	10.80	13.25	23.00	29.00
$8\frac{1}{4}$ inches . .	—	5.80	7.90	11.20	13.75	23.80	30.50
9 inches . .	—	6.00	8.20	11.60	14.25	24.60	32.00
$9\frac{1}{4}$ inches . .	—	6.20	8.50	12.00	14.75	25.40	33.50
10 inches . .	—	6.40	8.80	12.40	15.25	26.20	35.00
11 inches . .	—	—	9.40	13.20	16.25	27.80	36.50
12 inches . .	—	—	10.00	14.00	17.25	29.40	38.00
13 inches . .	—	—	—	14.80	18.25	31.00	41.00
14 inches . .	—	—	—	15.60	19.25	32.60	44.00
15 inches . .	—	—	—	—	20.25	34.20	47.00
16 inches . .	—	—	—	—	21.25	35.80	50.00

Tire Bolts.



MADE FROM CHARCOAL IRON, WITH FORGED NUTS.
MANUFACTURERS' STANDARD LIST.

LENGTH.	DIAMETERS.			
	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
$1\frac{1}{4}$ inch, per 100 . . .	\$1.90	\$1.90	\$2.70	\$3.60
$1\frac{1}{2}$ inch, per 100 . . .	1.90	1.90	2.70	3.60
$1\frac{3}{4}$ inch, per 100 . . .	1.95	1.95	2.80	3.70
2 inches, per 100 . . .	2.00	2.00	2.90	3.70
$2\frac{1}{4}$ inches, per 100 . . .	2.05	2.05	3.00	3.82
$2\frac{1}{2}$ inches, per 100 . . .	2.10	2.10	3.10	3.95
$2\frac{3}{4}$ inches, per 100 . . .	2.15	2.15	3.20	4.08
3 inches, per 100 . . .	2.20	2.20	3.30	4.20
$3\frac{1}{4}$ inches, per 100 . . .	2.25	2.25	3.40	4.32
$3\frac{1}{2}$ inches, per 100 . . .	2.30	2.30	3.50	4.45
4 inches, per 100 . . .	2.40	2.40	3.70	4.70

Stove Bolts.



PRICE PER HUNDRED.

Length.	FLAT HEADS.				ROUND HEADS.	
	5-32, 3-16, and 7-32 Inch.*	1-4 Inch	5-16 Inch.	3-8 Inch.	5-32, 3-16, and 7-32 Inch.*	1-4 Inch
$\frac{1}{8}$ inch . . .	\$0.60	—	—	—	\$0.85	—
$\frac{1}{4}$ inch . . .	.60	\$0.65	—	—	.85	\$0.95
$\frac{3}{8}$ inch . . .	.60	.65	—	—	.85	.95
$\frac{1}{2}$ inch . . .	.60	.65	\$1.05	\$2.20	.85	.95
$\frac{5}{8}$ inch . . .	.65	.70	—	—	.90	1.00
1 inch . . .	.65	.70	1.10	2.20	.90	1.00
$1\frac{1}{8}$ inch . . .	—	—	—	—	.95	—
$1\frac{1}{4}$ inch . . .	.70	.75	1.15	2.20	.95	1.05
$1\frac{3}{8}$ inch . . .	—	—	—	—	1.00	—
$1\frac{1}{2}$ inch . . .	.75	.80	1.20	2.20	1.00	1.10
$1\frac{3}{4}$ inch . . .	.80	.85	1.25	2.20	1.05	1.15
2 inches . . .	.85	.90	1.30	2.20	1.10	1.20
$2\frac{1}{4}$ inches . . .	.90	.95	1.35	2.30	—	—
$2\frac{1}{2}$ inches . . .	.95	1.00	1.40	2.40	—	—
$2\frac{3}{4}$ inches . . .	1.00	1.05	1.45	2.50	—	—
3 inches . . .	1.05	1.10	1.50	2.60	—	—

* 5-32 in. is about No. 8 Screw Gauge; 3-16 in. No. 10 Screw Gauge; 7-32 in. No. 12 Screw Gauge.

Carriage Bolts.

OLD LIST.



With Oval Heads, Finished Points, and Full Square Neck.

LENGTH.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{1}{2}$
1 $\frac{1}{4}$ inch, per 100	\$2.40	\$2.70	\$3.60	\$5.40	\$7.20
1 $\frac{1}{2}$ inch, per 100	2.40	2.70	3.60	5.40	7.20
1 $\frac{3}{4}$ inch, per 100	2.45	2.80	3.70	5.40	7.20
2 inch, per 100	2.50	2.90	3.70	5.40	7.20
2 $\frac{1}{4}$ inch, per 100	2.55	3.00	3.82	5.55	7.40
2 $\frac{1}{2}$ inch, per 100	2.60	3.10	3.95	5.70	7.60
2 $\frac{3}{4}$ inch, per 100	2.65	3.20	4.08	5.85	7.80
3 inch, per 100	2.70	3.30	4.20	6.00	8.00
3 $\frac{1}{4}$ inch, per 100	2.75	3.40	4.32	6.15	8.20
3 $\frac{1}{2}$ inch, per 100	2.80	3.50	4.45	6.30	8.40
3 $\frac{3}{4}$ inch, per 100	2.85	3.60	4.58	6.45	8.60
4 inch, per 100	2.90	3.70	4.70	6.60	8.80
4 $\frac{1}{4}$ inch, per 100	2.95	3.80	4.83	6.75	9.00
4 $\frac{1}{2}$ inch, per 100	3.00	3.90	4.95	6.90	9.20
4 $\frac{3}{4}$ inch, per 100	3.05	4.00	5.07	7.05	9.40
5 inch, per 100	3.10	4.10	5.20	7.20	9.60
5 $\frac{1}{2}$ inch, per 100	3.20	4.30	5.45	7.50	10.00
6 inch, per 100	3.30	4.50	5.70	7.80	10.40
6 $\frac{1}{2}$ inch, per 100	3.40	4.70	5.95	8.10	10.80
7 inch, per 100	3.50	4.90	6.20	8.40	11.20
7 $\frac{1}{2}$ inch, per 100	—	5.10	6.45	8.70	11.60
8 inch, per 100	—	5.30	6.70	9.00	12.00
8 $\frac{1}{2}$ inch, per 100	—	5.50	6.95	9.30	12.40
9 inch, per 100	—	5.70	7.20	9.60	12.80
9 $\frac{1}{2}$ inch, per 100	—	—	7.45	9.90	13.20
10 inch, per 100	—	—	7.70	10.20	13.60
10 $\frac{1}{2}$ inch, per 100	—	—	7.95	10.50	14.00
11 inch, per 100	—	—	8.20	10.80	14.40
11 $\frac{1}{2}$ inch, per 100	—	—	—	—	14.80
12 inch, per 100	—	—	—	11.40	15.20
12 $\frac{1}{2}$ inch, per 100	—	—	—	—	15.60
13 inch, per 100	—	—	—	—	16.00
14 inch, per 100	—	—	—	—	16.80

Norway Iron Carriage Bolts.



REVISED LIST ADOPTED OCTOBER 9, 1879.

PRICE PER HUNDRED.

DIAMETER.							DIAMETER.								
Len'th.	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	Len'th.	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$
1 in.	\$2.50	—	—	—	—	—	—	5 in.	\$4.75	\$5.98	\$7.34	\$8.46	\$10.18		
1 $\frac{1}{4}$ "	2.65	—	—	—	—	—	—	5 $\frac{1}{2}$ "	5.02	6.30	7.70	8.86	10.60		
1 $\frac{1}{2}$ "	2.80	\$3.68	—	—	—	—	—	6 "	5.30	6.62	8.08	9.24	11.02		
1 $\frac{3}{4}$ "	2.95	3.85	—	—	—	—	—	6 $\frac{1}{2}$ "	—	6.92	8.44	9.62	11.44		
2 "	3.10	4.03	\$5.00	\$6.16	7.64	—	—	7 "	—	7.24	8.80	10.10	11.88		
2 $\frac{1}{4}$ "	3.24	4.20	5.20	6.35	7.85	—	—	7 $\frac{1}{2}$ "	—	7.55	9.16	10.48	12.30		
2 $\frac{1}{2}$ "	3.36	4.35	5.40	6.54	8.06	—	—	8 "	—	7.88	9.52	10.86	12.72		
2 $\frac{3}{4}$ "	3.50	4.50	5.58	6.74	8.27	8 $\frac{1}{2}$ "	—	8 $\frac{1}{2}$ "	—	—	9.88	11.24	13.14		
3 "	3.65	4.68	5.78	6.94	8.48	9 "	—	9 "	—	—	10.24	11.62	13.56		
3 $\frac{1}{4}$ "	3.78	4.84	5.96	7.12	8.69	9 $\frac{1}{2}$ "	—	9 $\frac{1}{2}$ "	—	—	—	12.10	14.00		
3 $\frac{1}{2}$ "	3.92	5.00	6.16	7.30	8.90	10 "	—	10 "	—	—	—	12.48	14.42		
3 $\frac{3}{4}$ "	4.06	5.16	6.36	7.50	9.11	10 $\frac{1}{2}$ "	—	10 $\frac{1}{2}$ "	—	—	—	12.86	14.84		
4 "	4.20	5.30	6.56	7.70	9.34	11 "	—	11 "	—	—	—	13.24	15.26		
4 $\frac{1}{4}$ "	4.34	5.48	6.74	7.90	9.55	11 $\frac{1}{2}$ "	—	11 $\frac{1}{2}$ "	—	—	—	—	15.68		
4 $\frac{1}{2}$ "	4.48	5.65	6.92	8.08	9.76	12 "	—	12 "	—	—	—	—	16.12		

NORWAY IRON

Sleigh Shoe and Tire Bolts.



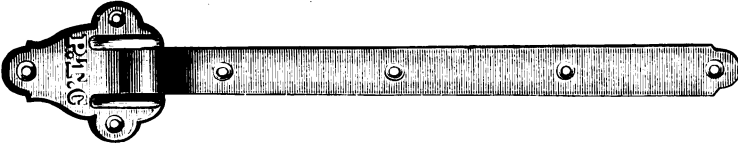
REVISED LIST ADOPTED OCTOBER 9, 1879.

PRICE PER HUNDRED.

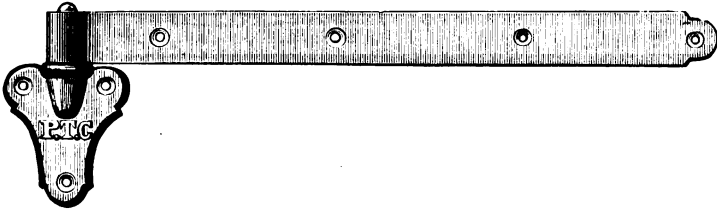
$\frac{1}{4}$ and $\frac{5}{16}$ inch diameter, 1 to 1 $\frac{3}{4}$ inch long \$1.50

DIAMETER.				DIAMETER.			
Length.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	Length.	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
1 in.	—	—	—	3 $\frac{1}{4}$ in.	\$2.08	\$2.82	\$3.70
1 $\frac{1}{4}$ "	—	—	—	3 $\frac{1}{2}$ "	2.16	2.90	3.80
1 $\frac{1}{2}$ "	—	\$2.24	—	3 $\frac{3}{4}$ "	2.23	2.98	3.90
1 $\frac{3}{4}$ "	—	2.32	—	4 "	2.30	3.06	4.00
2 "	\$1.85	2.41	\$3.20	4 $\frac{1}{4}$ "	—	3.22	4.20
2 $\frac{1}{4}$ "	1.85	2.50	3.30	5 "	—	3.38	4.40
2 $\frac{1}{2}$ "	1.85	2.58	3.40	5 $\frac{1}{2}$ "	—	—	—
2 $\frac{3}{4}$ "	1.92	2.66	3.50	6 "	—	—	—
3 "	2.00	2.74	3.60				

Plate Hinges.



FAST AND LOOSE JOINTS.



Straps Tapered, and Holes Countersunk.

Width of Strap,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$ inch.
Length of Strap	6	8	10	12 inch.
11 cents per pound.				

Width of Strap	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 inches.
Length of Strap	14	16	18	20	24	30 36 inches.
9 $\frac{1}{2}$ cents per pound.						

Hinge Nails.



$\frac{1}{4}$ inch by $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3 inches.

20 cents per pound. Other styles, lengths, and diameters, made to order.

Screw Hook and Strap Hinges.

PATENT.



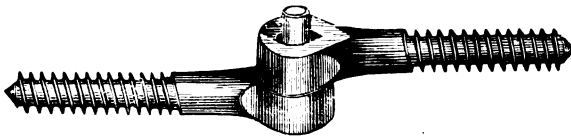
6, 8, 10, and 12 inches, 11 cents per pound.

14, 16, 18, 20, 22, 24, 26, 28, 30, and 36 inches long.

9½ cents per pound.

Screw Hook and Eye Hinges.

PATENT.



$\frac{3}{4}$ to 1 inch diameter 12 cents per pound.

$\frac{5}{8}$ inch diameter 14 cents per pound.

$\frac{1}{2}$ inch diameter 16 cents per pound.

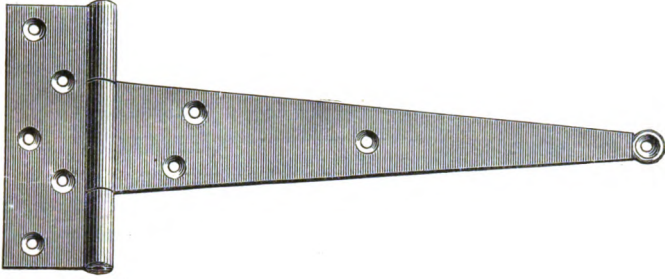
Cold Chisels.



Sizes,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$ inch.
Price per dozen,	\$2.00	2.50	3.50	5.00

$\frac{7}{8}$ and 1 inch, 40 cts. per pound.

Strap and T Hinges.



REVISED LIST,

ADOPTED BY ALL MANUFACTURERS, DECEMBER 20, -877.

LIGHT STRAP HINGES.

3	4	5	6	7	8	10	12	14	16 in.
\$1.00	1.20	1.40	1.70	2.25	2.50	3.50	6.00	7.50	9.00
Per dozen pairs.									

HEAVY STRAP HINGES.

4	5	per	6	8	10	12	14	16 inches.
\$1.40	1.85	dz. pr.	14	13½	13	12½	12	12 cts. pr. lb.

LIGHT T HINGES.

3	4	5	6	8	10	12	14 inches.
\$1.00	1.10	1.30	1.50	1.80	2.40	3.75	5.50 per dz. pr.

HEAVY T HINGES.

6	8	10	12	14	16	18 inches.
\$1.70	2.25	3.25	5.00	7.00	8.00	9.00 per dz. pr.

EXTRA HEAVY T HINGES.

5	6	8	10	12	14	16 inches.
\$2.50 pr. dz. pr.	14½	14	13½	13	12½	12½ cts. per lb.

HINGE HASPS.

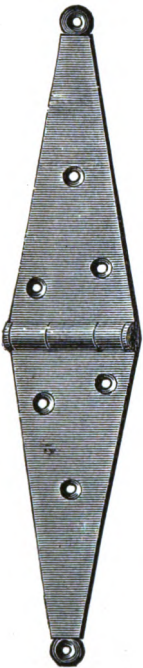
3	4½	6	8	10 inches.
\$1.75	2.00	2.25	3.50	4.75 per doz. pr.

CRATE HINGES.

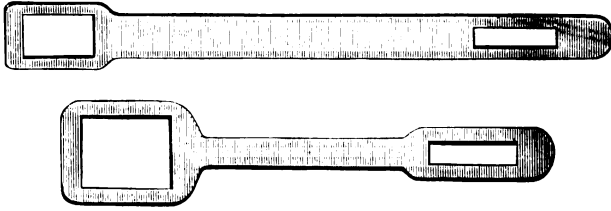
\$1.00 per dozen pairs.

CRATE HASPS.

\$1.75 per dozen pairs.

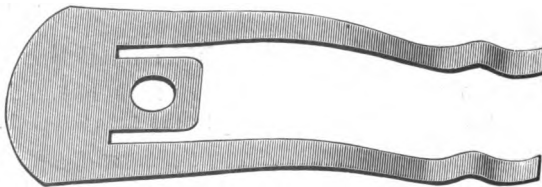


Stirrups.



Description.	Number.	Length.	Price per Hundred.
Spinning	1	4 $\frac{1}{8}$ inches.	\$2.00
Spinning	2	4 $\frac{3}{8}$ inches.	1.75
Spinning	3	3 $\frac{7}{8}$ inches.	1.50
Spinning	4	4 $\frac{3}{4}$ inches.	2.00
Spinning	5	4 $\frac{7}{8}$ inches.	1.75
Spinning	6	4 $\frac{1}{2}$ inches.	1.75
Spinning	7	5 $\frac{1}{8}$ inches.	2.25
Spinning	8	5 inches.	2.25
Speeder	9	5 $\frac{1}{4}$ inches.	4.00
Spinning	10	5 $\frac{7}{8}$ inches.	2.50
Spinning	11	5 $\frac{1}{2}$ inches.	2.50
Spinning	12	5 $\frac{3}{4}$ inches.	2.50
Spinning	13	5 $\frac{3}{8}$ inches.	2.75
Spinning	14	5 $\frac{1}{2}$ inches.	2.50
Spinning	15	5 $\frac{7}{8}$ inches.	2.50
Spinning	16	3 $\frac{1}{8}$ inches.	1.50
Spinning	17	4 $\frac{1}{8}$ inches.	1.75

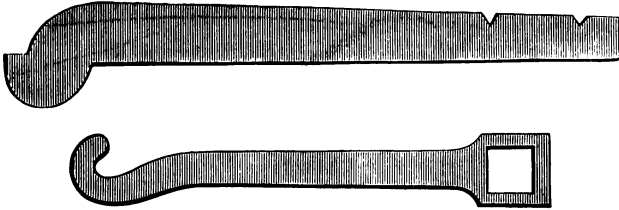
Clearer Springs.



A book containing diagrams of ten Clearer Springs, seventeen Stirrups, and seven Levers, showing exact size and shape, will be forwarded upon application.

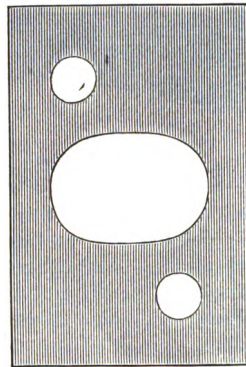
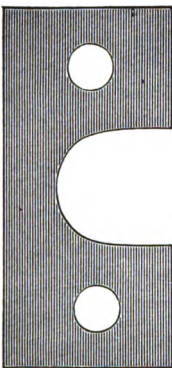
Price \$3.00 per dozen.

Levers.



Description.	Number.	Length.	Price per Hundred.
	1	5½ inches.	\$2.00
	2	5½ inches.	2.00
	3	5½ inches.	2.00
	4	6½ inches.	2.50
	5	7 inches.	3.00
	6	7 inches.	3.00
	7	6½ inches.	2.50

Top Card Plates.



Description.	Length.	Price per Hundred.
Oblong.	2 inches.	\$1.25
Round.	2 inches.	1.50

Tinned Can Rings.

Section No. 1.



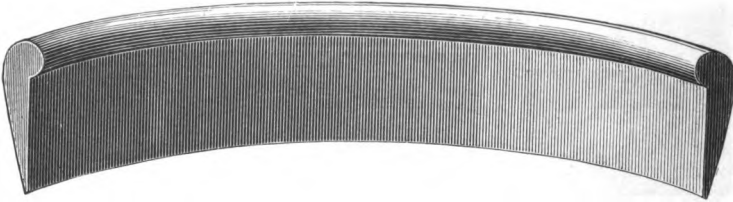
Section No. 2.



Section No. 3.



No. 4. Extra wide flanges.



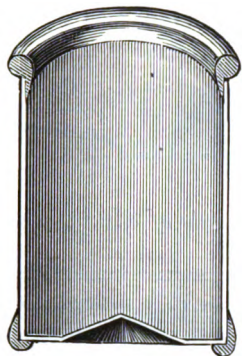
ROUND.

Size.	Price, each.	Size.	Price, each.
7 inches.	20 cents.	14 inches.	30 cents.
8 inches.	21 cents.	15 inches.	32 cents.
9 inches.	22 cents.	16 inches.	34 cents.
10 inches.	24 cents.	17 inches.	36 cents.
11 inches.	25 cents.	18 inches.	38 cents.
12 inches.	26 cents.	19 inches.	40 cents.
13 inches.	28 cents.	20 inches.	44 cents.

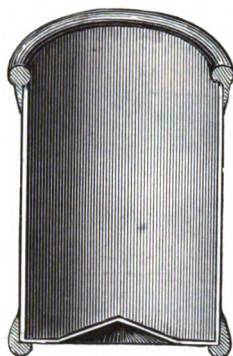
In ordering, please state exact size, and from what point measured, whether inside or outside of flange or round.

Tinned Can Rings,

FOR FACTORY CANS.



Section of Can showing position of Rings.
No. 3, Top. No. 1, Bottom.



Section of Can showing position of Rings.
No. 2, Top. No. 1, Bottom.



No. 1.



No. 2.



No. 3.



No. 4.

OVAL AND SQUARE CAN RINGS.

Oval.

7× 9.	Price, each, 22 cents.....	9×16.
9×10.	Price, each, 24 cents.....	10×18.
8×12.	Price, each, 26 cents.....	10×20.
9×12.	Price, each, 26 cents.....	10×16.
10×13.	Price, each, 28 cents.	
12×14.	Price, each, 30 cents.	

Square.

		9×16.	Price, each, 34 cents.
		10×18.	Price, each, 38 cents.
		10×20.	Price, each, 44 cents.
		10×16.	Price, each, 36 cents.

All sizes Flat Rings made to order.

Parties ordering should state which style of ring is wanted, *bead inside or out*. These rings are made from the best quality of iron, with flanges of a width to suit.

The above cuts show the flange and shape of iron. Every ring made round, true, and well tinned. Fractional sizes made to order.

FILES.



Rendered into United States Currency at the rate of \$10.00 per pound.

Flat, Half-round, Square, Round, Entering, Taper Cotter, Horse, Shoe, Flat and Half-round Rasps.
Mill Saws one or two Square Edges, Single and Double Cut.
Topping Files, Single and Double, left at point, and Safe Edges.

Inches.	Rough and Bastard.	2d Cut Flat and Half-round Gunstockers' and Round Rasps.	Smooth and Cabinet Files and Rasps.	Dead Smooth and Extra Smooth Cabinets.
PER DOZ.	PER DOZ.	PER DOZ.	PER DOZ.	PER DOZ.
1 to 4	\$2.38	\$2.76	\$3.38	\$5.12
5	2.88	3.38	4.12	6.26
6	3.50	4.12	4.75	7.26
7	4.26	4.88	5.75	8.76
8	5.26	6.00	6.75	10.00
9	6.00	6.75	7.75	11.76
10	7.50	8.50	9.50	14.26
11	9.00	10.00	11.50	17.50
12	10.75	12.00	13.25	20.00
13	12.50	13.50	15.00	22.50
14	15.00	16.50	18.00	27.00
15	18.00	19.50	21.00	31.50
16	21.50	23.50	26.00	39.00
17	25.00	27.50	31.50	47.00
18	30.00	32.50	37.00	55.50
19	34.00	37.50	42.00	63.00
20	40.50	44.50	49.50	74.50
21	46.50	50.50	56.50	85.00
22	53.00	57.50	64.00	96.00
23	60.50	66.00	73.00	110.00
24	70.00	75.50	83.00	125.00

EXTRAS.

All above 24 inches, \$10.00 per inch extra.
 Flat Files, double cut on the edge, to advance $\frac{1}{2}$ inch.
 Topping, Square Cut Edges, advance $\frac{1}{2}$ inch.
 Mill Saw, two Round Edges, advance $\frac{1}{2}$ inch.
 Feather Edge and Knife Files, to advance 3 inches.

Three-square, Hand, Equalling one safe Edge, Parallel Cotter, Pillar, Needle, Round Off, Bone, Potance, Round Edged Flat, Extra thin Flat, and Flat and High-back Half-round.

Inches.	Rough and Bastard.	2d Cut.	Smooth.	Dead Smooth.
PER DOZ.	PER DOZ.	PER DOZ.	PER DOZ.	PER DOZ.
1 to 4	\$2.62	\$3.00	\$3.76	\$5.62
5	3.12	3.76	4.50	6.76
6	4.26	4.88	5.76	8.76
7	5.26	6.00	6.76	10.00
8	6.00	6.76	7.76	11.76
9	7.50	8.50	9.50	14.26
10	9.00	10.00	11.50	17.50
11	10.76	12.00	13.26	20.00
12	12.50	13.50	15.00	22.50
13	15.00	16.50	18.00	27.00
14	18.00	19.50	21.00	31.50
15	21.50	23.50	26.00	39.00
16	25.00	27.50	31.50	47.00
17	30.00	32.50	37.00	55.50
18	34.00	37.50	42.00	63.00
19	40.50	44.50	49.50	74.50
20	46.50	50.50	56.50	85.00
21	53.00	57.50	64.00	96.00
22	60.50	66.00	73.00	110.00
23	70.00	75.50	83.00	125.00
24	79.50	86.00	94.00	141.00

EXTRAS.

All above 24 inches, \$10.00 per inch extra.
 Pin Files and Tanged Horse Rasps, to advance 1 inch.
 Round-offs with points, to advance 1 inch.
 Needle exceeding breadth of Hand Files, as Equalling cut on both edges.
 Equalling and Cotter Files, extra thin, to advance 1 inch.
 Three-square, 4 cents per lb. extra on Flat Files.

BEST REFINED CAST STEEL SAW FILES.

TAPER SAW FILES.				FRAME SAW FILES AND GULLETING.				Blunt Segment Saw Files and Taper Cut to Point.	Blunt 2d Cut Double and Band Saw Files.
Inches.	2d Cut Single.	2d Cut Double.	Smooth Single.	Inches.	2d Cut Single.	2d Cut Double.	2d Cut Single.	2d Cut Single.	
1 to 3½	PER DOZ. \$2.00	PER DOZ. \$2.37	PER DOZ. \$2.75	1 to 3½	PER DOZ. \$2.37	PER DOZ. \$2.87	PER DOZ. \$2.50	PER DOZ. \$3.25	
4	2.25	2.62	3.00	4	2.62	3.12	2.75	3.75	
4½	2.50	3.00	3.12	4½	2.87	3.37	3.25	4.25	
5	2.75	3.25	3.50	5	3.25	3.75	3.75	4.75	
5½	3.25	3.75	4.00	5½	3.75	4.25	4.25	5.25	
6	3.75	4.25	4.50	6	4.25	4.75	4.75	6.00	
6½	4.25	4.75	5.00	6½	4.75	5.25	5.25	6.75	
7	4.75	5.50	5.50	7	5.25	6.00	6.00	7.75	
7½	5.25	6.00	6.25	7½	6.00	6.50	6.75	8.75	
8	6.00	6.75	7.00	8	6.75	7.25	7.75	9.75	
8½	6.75	7.50	7.75	8½	7.25	8.00	8.75	10.75	
9	7.75	8.50	8.50	9	8.00	8.75	9.75	12.00	
9½	8.75	9.75	9.75	9½	9.00	9.75	10.75	13.25	
10	9.75	10.50	10.50	10	10.00	11.00	12.00	14.50	
11	12.00	13.00	13.00	11	12.50	13.50	14.50	17.00	
12	14.50	15.50	15.50	12	15.00	16.00	17.00	20.00	
13	17.00	18.50	18.50	13	18.00	19.50	20.00	-	
14	20.00	21.50	21.50	14	21.50	23.00	-	-	

EXTRAS.

Taper Saw Files, Double Cut Smooth, advance ½ inch on Smooth Single.
Frame Equalling Saw Files, 3 inches on Frame Saw price.

Rubbers, Rough and Bastard, 62 cts. per lb. 2d Cut, 72 cts. per lb. Smooth, 80 cts. per lb.

Bastard. 2d Cut. Smooth.
1 lb. Rubbers, 84 cts. per lb. 88 cts. 92 cts.
2 lb. Rubbers, 72 cts. per lb. 76 cts. 80 cts.
3 lb. Rubbers, 66 cts. per lb. 72 cts. 76 cts.

Hand and Equalling Cut on both Edges, or with one double cut Edge.
Lock, Arch, Riffer, Tumbler, Oval Saw Files, Cant, Taper Cross, Bolled Three Square, Double Tanged Mill Saw, Topping with two Round Edges.

Inches.	Rough and Bastard.	2d Cut.	Smooth.	Dead Smooth.
1 to 4	PER DOZ. \$3.12	PER DOZ. \$3.76	PER DOZ. \$4.50	PER DOZ. \$6.76
5	3.76	4.38	5.26	7.88
6	4.76	5.38	6.12	9.26
7	5.50	6.38	7.26	11.00
8	6.76	7.62	8.50	12.76
9	8.26	9.26	10.26	15.50
10	10.00	11.00	12.50	19.00
11	11.50	12.76	14.00	21.00
12	13.50	15.00	16.50	25.00
13	16.50	18.00	19.50	29.50
14	19.50	21.50	24.00	35.00
15	23.00	25.50	29.00	43.00
16	27.50	30.00	33.50	51.00
17	32.00	35.00	39.50	59.00
18	37.00	41.00	45.50	69.00
19	43.50	47.50	53.00	80.00
20	50.00	54.00	60.00	90.00
21	57.00	61.50	68.00	103.00
22	65.50	70.50	78.00	118.00
23	75.00	80.50	91.00	137.00
24	84.00	91.00	104.00	156.00

EXTRAS.

All above 24 inches, \$10.00 per inch extra. Hand and Equalling, with Round Edges, advance 1 inch, if Double Cut, 2 inches. Two-tanged Mill Saw, 2 Round Edges, advance ½ inch. Three-square and Hand Flat Files, Rough and Middle Cut, above 14 inches 26 cts. per doz. extra, to Bastard Cut.

REAPER KNIFE FILES.

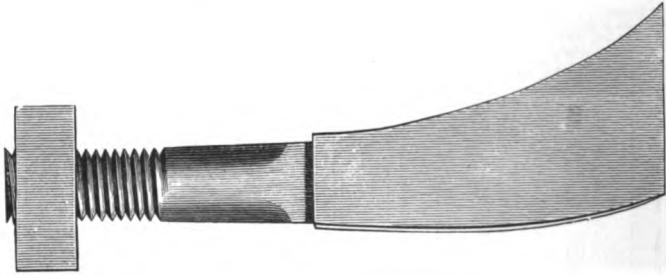
Per Dozen.

Inch.	PLAIN AND SWAGED.		KNIFE SHAPE.		CANT SHAPE.	
	Single.	Doub.	Single.	Doub.	Single.	Double.
7	\$4.25	\$4.50	\$4.25	\$4.75	\$6.25	\$6.75
8	4.62	5.00	4.75	5.25	6.75	7.37
9	5.75	6.37	5.87	6.62	8.12	8.75
10	6.75	7.75	6.87	8.00	9.50	10.62

EXTRAS.

Bread Rasps, handled, \$15.00 per doz.
Horse Mouth Rasps, \$2.50 each.
Knife Files advance 3 inches on Flat price.
Feather Edges advance 3 inches on Flat price.
Single Improved Shoe Rasps ½ inch on Flat price.
Double Improved Shoe Rasps 1 inch on Flat price.
All Parallel Files advance 1 inch on their respective Descriptions.
All quarter-inches, price of next size above.
Round, Half-round, and Cross Files, double cut 2d cut, advance ½ inch.
Round, Half-round, and Cross Files, double cut Smooth, advance 1 inch.
New Cut Files advance 1 inch.
Extra thin Flat advance 1 inch.

Threshing-Machine Teeth.

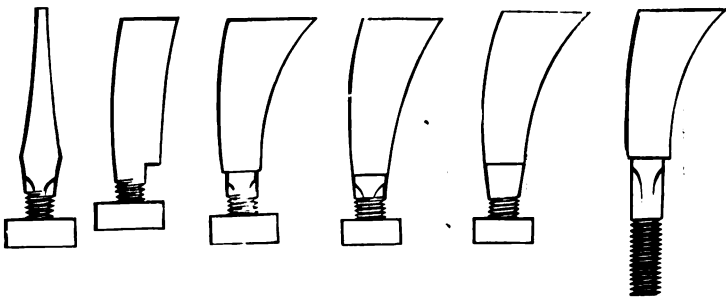


HAVING for several years been extensively engaged in the manufacture of Teeth (or Spikes) for some of the largest Threshing-Machine builders in the United States and Canada, we take pleasure in being able to confidently recommend our Teeth as being superior in quality and finish to any others yet made.

The iron we use is prepared from the very best of charcoal blooms, and made of such a degree of hardness as long experience shows us to be especially adapted for Thresher Teeth.

The quality and finish of our Threshing-Machine Teeth is well known to the trade. They are hammered, not dropped or pressed. They will bend double without breaking. We guarantee them to fit the machines for which they are designed.

In cutting the threads and fitting the nuts, we follow with care whatever directions may be given by parties ordering, so that the nuts will fit teeth made in previous years. We now have tools for a large number of different styles, and are ready to manufacture any pattern which may be desired.



The following Illustrations show exact sizes and shapes of

THRESHING-MACHINE TEETH

CARRIED IN STOCK BY THE

PROVIDENCE TOOL COMPANY,

At their Several Agencies and at their Factory.

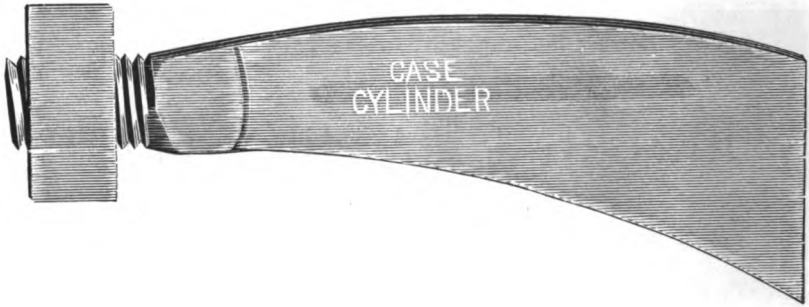


The illustrations in these pages are very carefully gotten up, and represent the exact size and shape of the several different kinds of teeth. We give only the illustrations of the cylinder (or bar) teeth and the concave, but we state the dimensions of the other teeth so that you may easily distinguish them.

We have now in stock, and will carry during each season, complete stocks of all these teeth, and shall be able to fill orders at once upon receipt.

In filling orders, unless otherwise instructed, we assort in the usual proportion, which is as follows: For every 100 teeth, 55 cylinder, 25 concave, 10 band, 5 head, and 5 ear.

Upon receipt of *specification of styles, kinds, and amount* of Thresher Teeth wanted, we will gladly quote prices.



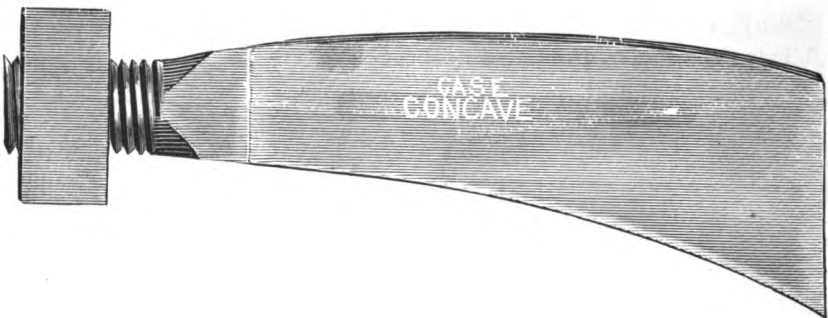
Cylinder Tooth has Blade 3 inches long, Shank $1\frac{1}{4}$ inches long.

Band Tooth has Blade $2\frac{3}{4}$ inches long, Shank $1\frac{3}{4}$ inches long.

Head Tooth has Blade $2\frac{3}{4}$ inches long, Shank $2\frac{1}{4}$ inches long.

Ear Tooth has Blade 3 inches long, Shank 2 inches long.

The shoulders of Band, Head, and Ear Teeth are same as that of Cylinder.





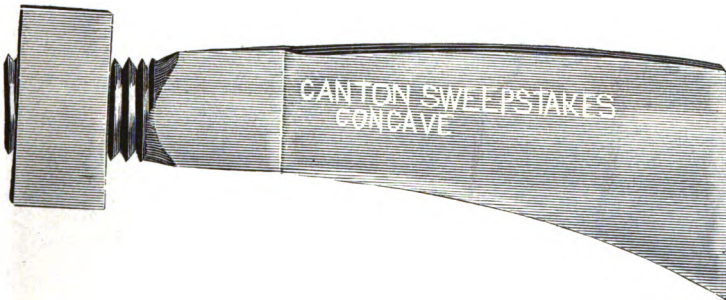
Cylinder Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{1}{4}$ inches long.

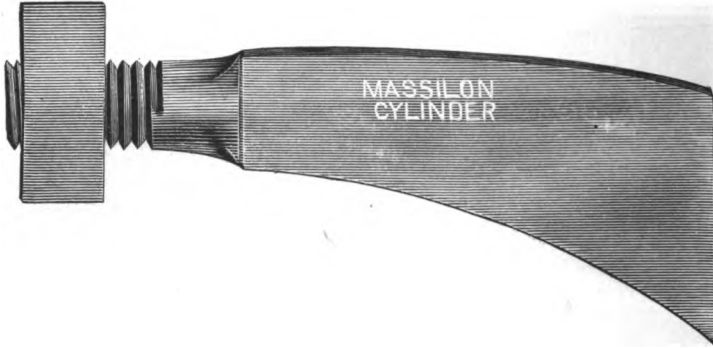
Band Tooth has Blade $2\frac{1}{4}$ inches long, Shank $1\frac{1}{2}$ inches long.

Head Tooth has Blade $2\frac{1}{4}$ inches long, Shank $2\frac{1}{4}$ inches long.

Ear Tooth has Blade $2\frac{1}{2}$ inches long, Shank 2 inches long.

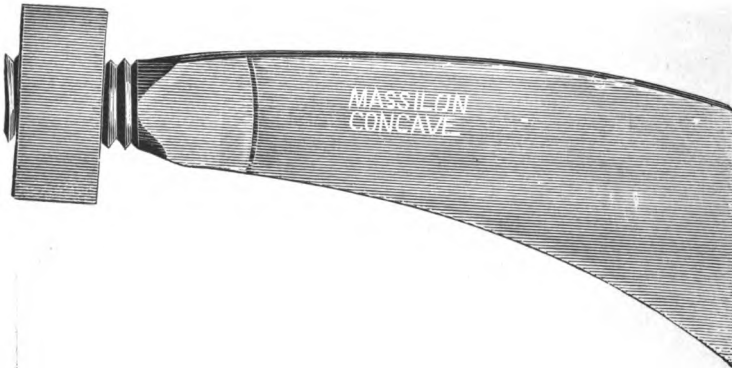
The shoulders of Band, Head, and Ear Teeth are same as that of Cylinder.



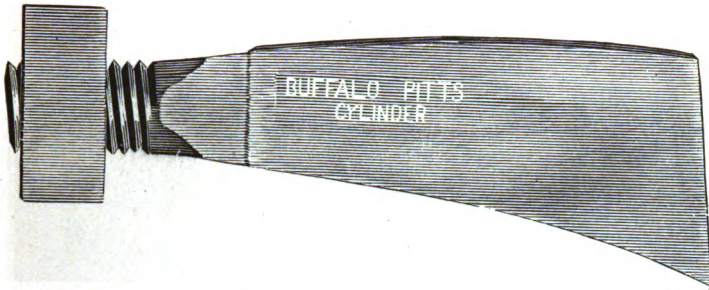


Cylinder Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{1}{2}$ inches long.
 Band Tooth has Blade $2\frac{1}{4}$ inches long, Shank $1\frac{1}{2}$ inches long.
 Head Tooth has Blade $2\frac{1}{4}$ inches long, Shank $2\frac{1}{4}$ inches long.
 Ear Tooth has Blade $2\frac{1}{2}$ inches long, Shank 2 inches long.

The shoulders of Band, Head, and Ear Teeth are same as that of Cylinder.



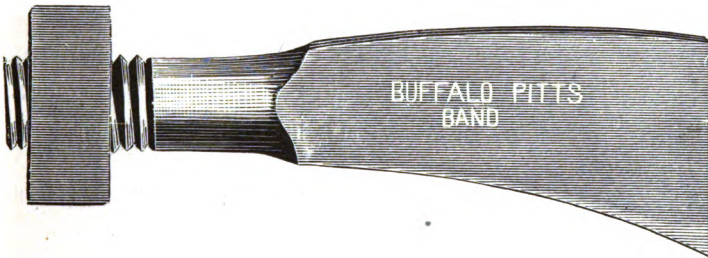
The new style Massillon Teeth have shanks $\frac{3}{16}$ inches in diameter instead of $\frac{1}{2}$ inch, otherwise same as above.



Cylinder Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{1}{2}$ inches long.

Ear Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{1}{2}$ inches long.

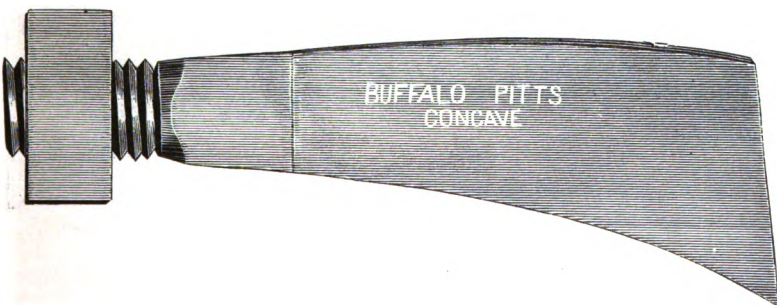
Ear Tooth has shoulder same as Cylinder.

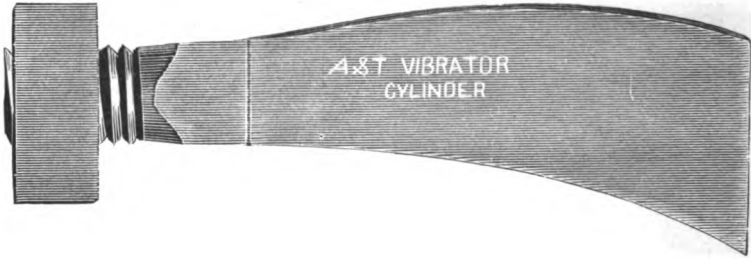


Band Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{1}{2}$ inches long.

Head Tooth has Blade $2\frac{1}{4}$ inches long, Shank 2 inches long.

Head Tooth has shoulder same as Band.





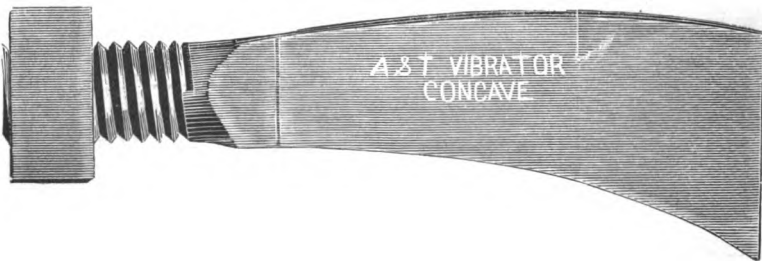
Cylinder Tooth has Blade $2\frac{5}{8}$ inches long, Shank $1\frac{1}{4}$ inches long.

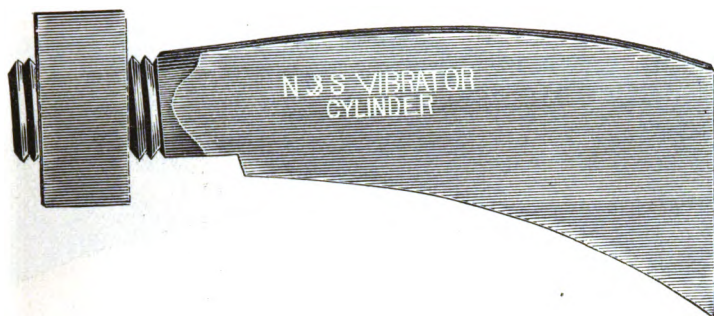
Band Tooth has Blade $2\frac{3}{8}$ inches long, Shank $1\frac{1}{2}$ inches long.

Head Tooth has Blade $2\frac{3}{8}$ inches long, Shank $2\frac{3}{8}$ inches long.

Ear Tooth has Blade $2\frac{5}{8}$ inches long, Shank $2\frac{1}{8}$ inches long.

The shoulders of Band, Head, and Ear are same as that of Cylinder.





Cylinder Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{1}{4}$ inches long.

Head Tooth has Blade $2\frac{1}{4}$ inches long, Shank $2\frac{1}{2}$ inches long.

Ear Tooth has Blade $2\frac{1}{2}$ inches long, Shank $2\frac{1}{4}$ inches long.

The new style of N. & S. Vibrator Teeth have Blades $\frac{1}{4}$ inch longer than above, otherwise same.



Concave Tooth has Blade 3 inches long, Shank $1\frac{3}{8}$ inches long.

Short Concave Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{3}{8}$ inches long.



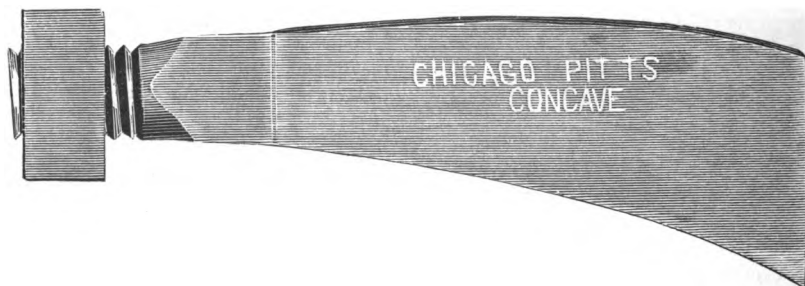
Cylinder Tooth has Blade $2\frac{3}{4}$ inches long, Shank $1\frac{1}{2}$ inches long.

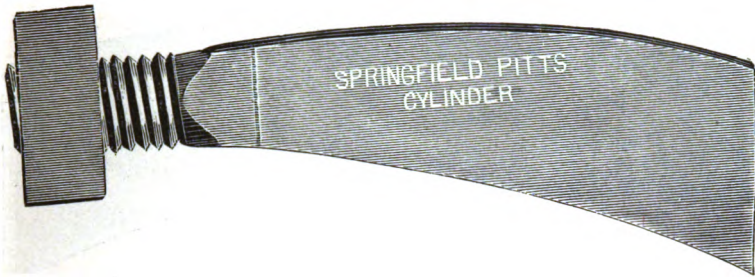
Band Tooth has Blade $2\frac{3}{8}$ inches long, Shank $1\frac{1}{8}$ inches long.

Head Tooth has Blade $2\frac{3}{8}$ inches long, Shank $2\frac{1}{8}$ inches long.

Ear Tooth has Blade $2\frac{3}{4}$ inches long, Shank $1\frac{7}{8}$ inches long.

The shoulders of Band, Head, and Ear Teeth are same as that of Cylinder.





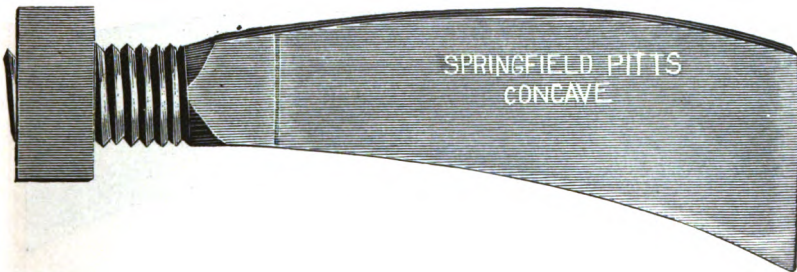
Cylinder Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{3}{8}$ inches long.

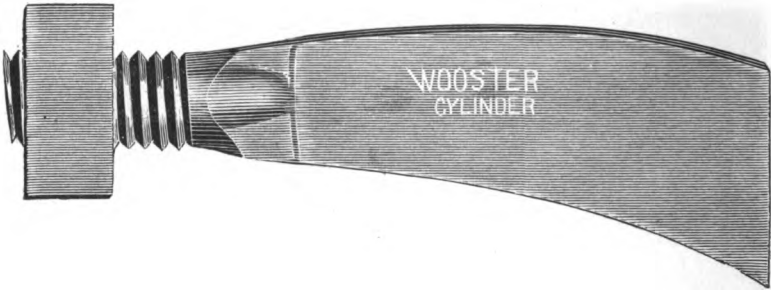
Band Tooth has Blade $2\frac{1}{4}$ inches long, Shank $1\frac{5}{8}$ inches long.

Head Tooth has Blade $2\frac{1}{4}$ inches long, Shank $2\frac{1}{2}$ inches long.

Ear Tooth has Blade $2\frac{1}{2}$ inches long, Shank $2\frac{1}{4}$ inches long.

The shoulders of Band, Head, and Ear Teeth are same as that of Cylinder.





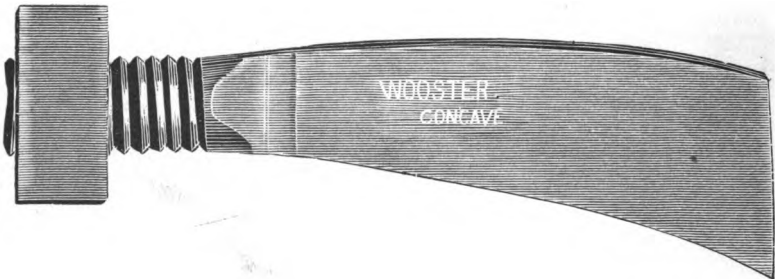
Cylinder Tooth has Blade $2\frac{1}{2}$ inches long, Shank $1\frac{3}{8}$ inches long.

Band Tooth has Blade $2\frac{1}{4}$ inches long, Shank $1\frac{1}{8}$ inches long.

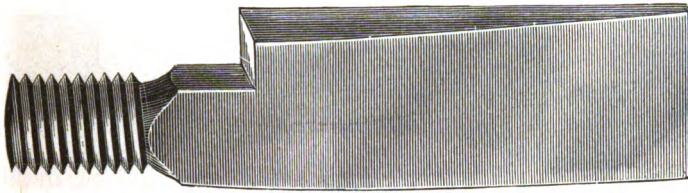
Head Tooth has Blade $2\frac{1}{4}$ inches long, Shank $2\frac{5}{8}$ inches long.

Ear Tooth has Blade $2\frac{1}{2}$ inches long, Shank $2\frac{1}{4}$ inches long.

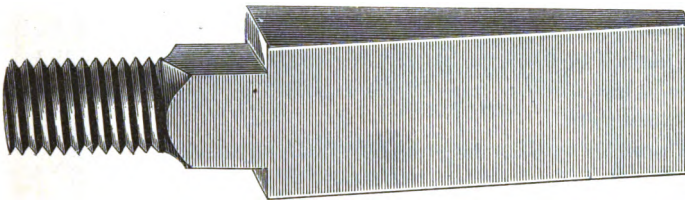
The shoulders of Band, Head, and Ear Teeth are same as that of Cylinder.



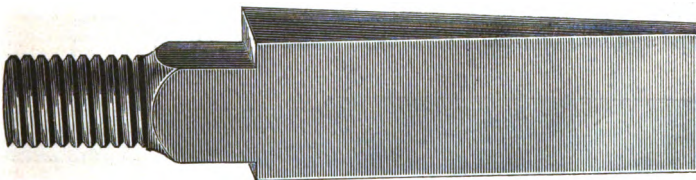
Vermont Pattern.



New York Pattern — large.



New York Pattern — small.



We furnish all of above with square nuts.

Chain Links and Chain.



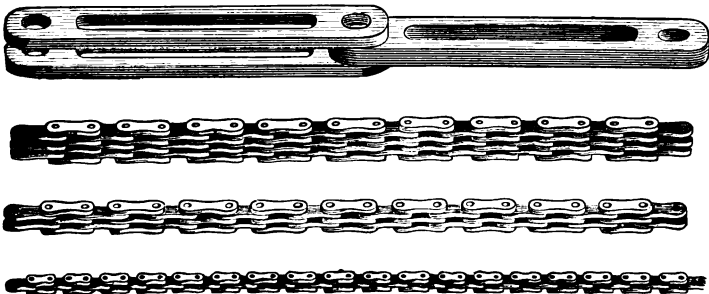
The accompanying table is made up of such thickness of Links as we happen to have on hand. We can vary thickness of link, size of hole, and distance from centre to centre of holes, to suit wants of our customers.

Prices for small or large lots given on application.

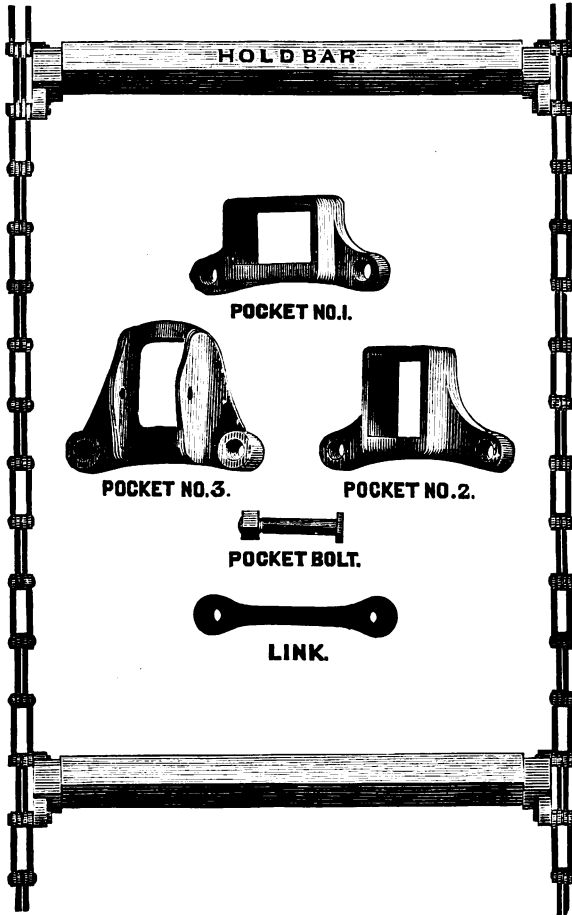
We manufacture Endless Chains or Links for Chains of a large variety of shapes and sizes.

We make between one and two hundred different styles, varying in length from one quarter inch to twelve inches long. They are suitable for almost every variety of work, such as models for Small Machines, Feed Motion for Lathes, Mules, Ice Hoisting, Sugar Mills, etc. In fact, we can furnish Chain for every kind of work desired.

We will mail to any party our Diagram Book, showing outside shape and size of over 100 links manufactured by us.



Ice Elevator Chain.



Chain, in sections of $5\frac{1}{2}$ feet	.	.	.	.	.	.
Extra Links	.	.	.	.	.	.
Extra Rivets	.	.	.	.	.	.
Pockets, either style	.	.	.	.	.	.
Pocket Bolts	.	.	.	.	.	.

Prices furnished upon application.

Table of Sizes, Weights, and Prices of Chain Links.

Number on Diagram.	Whole Length.	Distance from centre to cen- tre of Holes.	Thickness.	Weight per 100 Links.	Price for Loose Links.	Price per foot. Chain.
				Pounds.	Per 100.	
1				.03	\$1.00	\$1.50
2				.08	1.00	1.50
3				.4	1.00	1.25
4				.22	1.00	1.25
5				.25	1.00	1.00
6				.42	.90	.50
7				.22	.75	.50
8				.32	.75	.50
9				.3	.75	.50
10				.4	.75	.50
11				.43	.60	.50
12				.6	.75	.50
13				.58	.75	.50
14				.6	1.00	.50
15				.36	.75	.50
16				.45	.75	.50
17				.58	.25	.20
18				.61	.30	.20
19				.87	.30	.20
20				.53	.25	.20
21				.65	.30	.20
22				.79	.30	.20
23				.9	.40	.25
24				.5	.30	.20
25				1.63	.60	.30
26				.93	.65	.35
27				1.26	.40	.22
28				1.00	.40	.22
29				1.50	.40	.22
30				2.12	.75	.40
31				2.42	.50	.35
32				.73	.45	.22
33				1.77	.45	.22
34				1.9	.45	.22
35				2.85	.45	.22
36				2.34	.45	.22
37				1.49	.45	.22
38				2.68	.45	.22
39				2.26	.45	.22
40				2.5	.45	.22
41				2.4	.45	.22
42				2.5	.45	.22
43				1.82	.45	.22
44				2.5	.45	.22
45				2.8	.45	.22
46				3.6	.60	.30
47				3.00	.60	.30
48				3.82	.80	.45
49				2.75	.60	.30
50				4.15	.90	.45
51				5.00	.50	.25

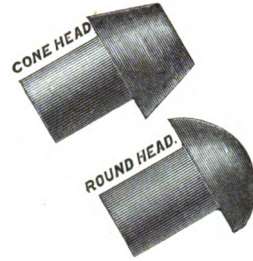
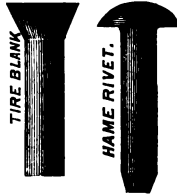
Table of Sizes, Weights, and Prices of Chain Links.

Number on Diagram.	Whole Length.	Distance from centre to centre of Holes.	Thickness.	Weight per 100 Links.	Price for Loose Links.	Price per foot. Chain.
				Pounds.	Per 100.	
52	1 $\frac{1}{8}$	1 $\frac{1}{8}$		6.16	\$0.60	\$0.30
53	1 $\frac{1}{4}$	1 $\frac{1}{4}$		3.04	.50	.25
54	1 $\frac{3}{8}$	1 $\frac{3}{8}$		2.59	.50	.25
55	1 $\frac{1}{2}$	1 $\frac{1}{2}$		2.66	.50	.25
56	1 $\frac{5}{8}$	1 $\frac{5}{8}$		1.38	.50	.25
57	1 $\frac{3}{4}$	1 $\frac{3}{4}$		2.15	.50	.25
58	1 $\frac{7}{8}$	1 $\frac{7}{8}$		3.1	.50	.25
59	1 $\frac{1}{2}$	1 $\frac{1}{2}$		4.00	.50	.25
60	1 $\frac{1}{2}$	1 $\frac{1}{2}$		2.4	.50	.25
61	1 $\frac{3}{4}$	1 $\frac{3}{4}$		2.02	.50	.25
62	1 $\frac{1}{2}$	1 $\frac{1}{2}$		8.97	.75	.30
63	1 $\frac{1}{2}$	1 $\frac{1}{2}$		9.00	.75	.30
64	1 $\frac{1}{2}$	1 $\frac{1}{2}$		5.5	.60	.30
65	1 $\frac{1}{2}$	1 $\frac{1}{2}$		5.00	.60	.30
66	2	1 $\frac{1}{2}$		6.08	.65	.27
67	2 $\frac{1}{8}$	1 $\frac{1}{2}$		2.82	.65	.30
					Per Pound.	
68	2 $\frac{1}{4}$	1 $\frac{5}{8}$		4.00	.18	.30
69	2 $\frac{1}{4}$	1 $\frac{5}{8}$		3.15	.18	.30
70	2 $\frac{1}{4}$	1 $\frac{5}{8}$		8.5	.18	.40
71	2 $\frac{1}{4}$	1 $\frac{5}{8}$		2.5	.18	.30
72	2 $\frac{1}{4}$	1 $\frac{5}{8}$		4.69	.18	.30
73	2 $\frac{1}{4}$	1 $\frac{5}{8}$		4.5	.18	.30
74	2 $\frac{1}{4}$	1 $\frac{5}{8}$		6.25	.18	.30
75	2 $\frac{1}{4}$	1 $\frac{5}{8}$		6.00	.18	.30
76	2 $\frac{1}{4}$	1 $\frac{5}{8}$		6.00	.18	.30
77	2 $\frac{1}{4}$	1 $\frac{5}{8}$		6.25	.18	.30
78	2 $\frac{1}{4}$	1 $\frac{5}{8}$		6.25	.18	.30
79	2 $\frac{1}{4}$	1 $\frac{5}{8}$		7.81	.18	.30
80	2 $\frac{1}{4}$	1 $\frac{5}{8}$		8.00	.18	.30
81	2 $\frac{1}{4}$	1 $\frac{5}{8}$		6.25	.18	.30
82	2 $\frac{1}{4}$	1 $\frac{5}{8}$		7.15	.18	.30
83	2 $\frac{1}{4}$	1 $\frac{5}{8}$		36.00	.18	.30
84	2 $\frac{1}{4}$	1 $\frac{5}{8}$		12.5	.18	.35
85	2 $\frac{1}{4}$	2		7.5	.18	.30
86	2 $\frac{1}{4}$	1 $\frac{5}{8}$		14.06	.18	.35
87	2 $\frac{1}{4}$	1 $\frac{5}{8}$		14.06	.18	.35
88	2 $\frac{1}{4}$	1 $\frac{5}{8}$		14.5	.18	.35
89	2 $\frac{1}{4}$	2		11.5	.18	.35
90	2 $\frac{1}{4}$	1 $\frac{3}{4}$		6.25	.18	.30
91	2 $\frac{1}{4}$	1 $\frac{3}{4}$		15.63	.18	.35
92	2 $\frac{1}{4}$	1 $\frac{3}{4}$		23.44	.18	.45
93	3	1 $\frac{1}{2}$		21.88	.18	.45
94	3 $\frac{1}{8}$	2		7.81	.18	.30
95	3 $\frac{1}{8}$	1 $\frac{1}{2}$		21.88	.18	.45
96	3 $\frac{1}{8}$	2		14.06	.18	.40
97	3 $\frac{1}{8}$	2 $\frac{1}{4}$		12.5	.18	.40
98	3 $\frac{1}{8}$	2 $\frac{1}{4}$		25.00	.18	.60
99	3 $\frac{1}{8}$	2 $\frac{1}{4}$		21.88	.18	.60
100	3 $\frac{1}{8}$	2 $\frac{1}{4}$		20.00	.18	.60
101	3 $\frac{1}{8}$	2 $\frac{1}{4}$		37.5	.18	.60
102	4	2 $\frac{1}{2}$		12.5	.18	.45

Table of Sizes, Weights, and Prices of Chain Links.

Number on Diagram.	Whole Length.	Distance from centre to centre of Holes.	Thickness.	Weight per 100 Links.	Price for Loose Links.	Price per foot. Chain.
				Pounds.	Per Pound.	
103	4 $\frac{1}{8}$	2 $\frac{5}{8}$	1	22.00	\$0.18	\$0.50
104	3 $\frac{3}{8}$	2 $\frac{3}{8}$	1	25.00	.18	.60
105	4 $\frac{1}{8}$	2 $\frac{1}{8}$	1	20.00	.18	.50
106	4	2	1	87.5	.18	1.50
107	4 $\frac{1}{8}$	2 $\frac{1}{8}$	1	62.5	.18	1.00
108	4 $\frac{1}{8}$	2 $\frac{1}{8}$	1	37.5	.18	.50
109	4 $\frac{1}{8}$	3	1	56.25	.15	.60
110	4 $\frac{1}{8}$	3 $\frac{1}{8}$	1	43.75	.15	.55
111	4 $\frac{1}{8}$	2 $\frac{3}{8}$	1	56.25	.20	.75
112	4 $\frac{1}{8}$	3 $\frac{1}{8}$	1	45.00	.15	.55
113	4 $\frac{1}{8}$	3	1	59.38	.15	.65
114	4 $\frac{1}{8}$	2 $\frac{5}{8}$	1	90.00	.15	1.25
115	4 $\frac{1}{8}$	3 $\frac{3}{8}$	1	50.00	.15	.60
116	4 $\frac{1}{8}$	3	1	45.00	.15	.55
117	5	3	1	53.13	.15	.60
118	6 $\frac{1}{8}$	4 $\frac{1}{8}$	1	184.38	.15	1.25
119	7 $\frac{1}{8}$	5 $\frac{7}{8}$	1	46.88	.15	.50
120	6	4 $\frac{1}{8}$	1	85.00	.15	.70
121	5 $\frac{1}{8}$	4 $\frac{1}{8}$	1	75.00	.15	.65
122	5 $\frac{1}{8}$	3 $\frac{1}{8}$	1	43.75	.15	.50
123	5 $\frac{1}{8}$	3 $\frac{1}{8}$	1	47.38	.15	.50
124	5 $\frac{1}{8}$	3 $\frac{5}{8}$	1	71.88	.15	.65
125	5 $\frac{3}{8}$	3 $\frac{3}{8}$	1	59.38	.15	.50
126	4 $\frac{3}{8}$	3 $\frac{3}{8}$	1	31.50	.15	.50
127	5 $\frac{3}{8}$	3 $\frac{3}{8}$	1	118.75	.15	1.25
128	5 $\frac{3}{8}$	3 $\frac{1}{2}$	1	75.00	.15	.80
129	6 $\frac{5}{8}$	4 $\frac{1}{2}$	1	59.5	.15	.50
130	7 $\frac{5}{8}$	4 $\frac{3}{8}$	1	162.5	.15	1.50
131	8	5 $\frac{1}{8}$	1	98.35	.15	1.00
132	9 $\frac{3}{8}$	7 $\frac{1}{8}$	1	228.5	.15	1.00
133	9 $\frac{3}{8}$	7 $\frac{1}{8}$	1	281.5	.15	1.00
134	6 $\frac{1}{2}$	4 $\frac{1}{2}$	1	82.5	.15	.60
135	6 $\frac{1}{2}$	4 $\frac{3}{8}$	1	69.00	.15	.50
136	6 $\frac{1}{2}$	4 $\frac{1}{8}$	1	77.00	.15	.55
137	7 $\frac{1}{8}$	6	1	62.50	.15	.50
138	6 $\frac{1}{8}$	4 $\frac{7}{8}$	1	70.00	.15	.50
139	7 $\frac{1}{8}$	5 $\frac{3}{8}$	1	92.50	.15	.75
140	4 $\frac{3}{8}$	3 $\frac{1}{8}$	1	90.00	.15	.50
141	5 $\frac{3}{8}$	3 $\frac{1}{8}$	1	90.00	.15	.50
142	7 $\frac{1}{2}$	6	1	82.68	.15	.50
143	7 $\frac{1}{8}$	6 $\frac{1}{8}$	1	112.5	.15	.50
144	7 $\frac{1}{8}$	6 $\frac{1}{8}$	1	87.5	.15	.60
145	7 $\frac{1}{8}$	6 $\frac{5}{8}$	1	59.38	.15	.50
146	7 $\frac{1}{8}$	6 $\frac{3}{8}$	1	87.5	.15	.60
147	7 $\frac{1}{8}$	6 $\frac{1}{2}$	1	137.5	.15	1.00
148	10	8 $\frac{1}{8}$	1	198.00	.15	1.50
149	10 $\frac{1}{2}$	8 $\frac{1}{8}$	1	207.00	.15	1.50

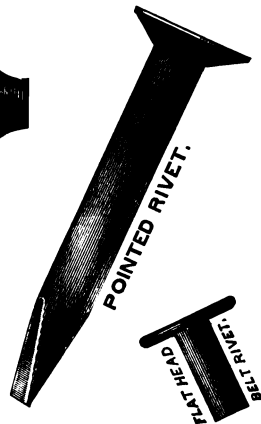
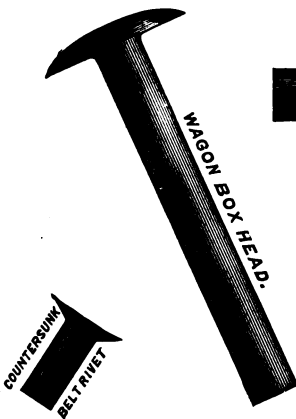
Rivets.



We are prepared to fill orders for the different sizes of Black and Tinned Rivets, from $\frac{1}{8}$ to $\frac{1}{2}$ inch diameter, of any length, either Flat, Round, Rose, Cone, Steeple, Globe, Curve, Wheel, Machine, Truss, Wagon Box or Countersunk Head, made from genuine Norway Iron. We also make Pointed Rivets of all shapes and sizes.

Our stock on hand comprises over 300 sizes, including all kinds used by Tinner, Sheet Iron Workers, Stove and Hose Manufacturers, Coopers, Wagon and Block Makers, Agricultural Machinists, Railroad Companies, for Tank and Locomotive Work.

As we use for our Wire and Rivets nothing but the best stock, purchasers may rely on getting a superior article.



Rivets.

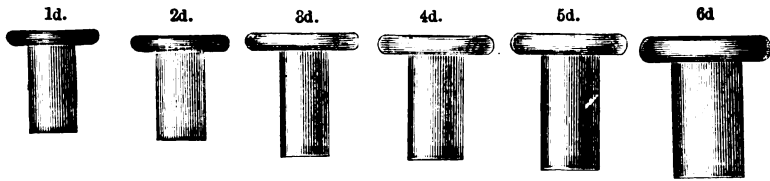
COOPERS' HEAVY RIVETS.

IN BULK.

Coopers' 1d and 2d 12 cents per lb.

Coopers' 3d and 4d 11½ cents per lb.

Coopers' 5d and 6d 10½ cents per lb.



Smaller than No. 6 wire, and shorter than ½ inch.

SIZE OF WIRE.	$\frac{3}{16}$	7	8	9	10	11	12	13	14
LENGTH.	Cents per pound.	Cents per pound.	Cents per pound.	Cents per pound.	Cents per pound.	Cents per pound.	Cents per pound.	Cents per pound.	Cents per pound.
$\frac{3}{8}$ inch	25	25	25	30	35	40	50	60	60
$\frac{1}{2}$ inch	24	24	24	29	33	40	50	60	60
$\frac{5}{8}$ inch	23	23	23	27	31	36	45	50	60
$\frac{3}{4}$ inch	22	22	22	25	29	33	39	45	58
$\frac{7}{8}$ inch	20	20	21	23	27	30	35	40	56
$\frac{1}{2}$ inch	19	19	19	21	24	28	30	35	54
$\frac{3}{4}$ inch	18	18	19	21	24	27	30	35	52
$\frac{1}{2}$ inch	18	18	19	21	23	26	29	33	50
$\frac{1}{4}$ inch	17	17	18	21	22	25	27	31	45
$\frac{1}{8}$ inch	17	17	17	20	21	24	24	29	40
$\frac{1}{8}$ inch	16	17	17	20	20	23	24	29	37
$\frac{1}{8}$ inch	16	17	17	19	19	22	24	29	34
$\frac{1}{8}$ inch	15	16	16	19	19	21	23	27	30

Rivets made from wire smaller than No. 14, all lengths, 70 cents per pound.

Tinned Rivets, not otherwise specified, 6 cents per pound advance on price of Black.

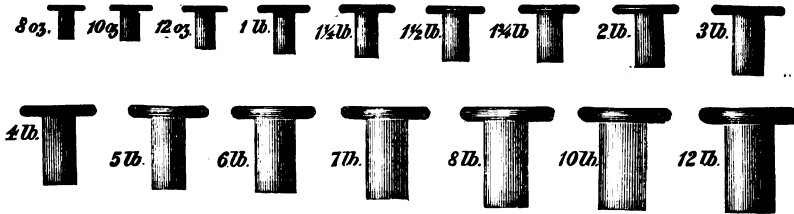


TINNED BELT RIVETS AND BURRS.

No.	7	8	9	10	11	12	13	Wire.
Price,	25	26	27	28	30	35	38	cts. per lb.



Rivets.



IN BULK.

Size.	Black.	Tinned
8 oz.	38 cts. per lb.	45 cts. per lb.
10 oz.	34 cts. per lb.	39½ cts. per lb.
12 oz.	31 cts. per lb.	36½ cts. per lb.
1 lb.	26 cts. per lb.	31 cts. per lb.
1¼ lb.	23 cts. per lb.	27½ cts. per lb.
1½ lb.	21 cts. per lb.	25½ cts. per lb.
1¾ lb.	20 cts. per lb.	23¾ cts. per lb.
2 lb.	19 cts. per lb.	22½ cts. per lb.
2½ lb.	18 cts. per lb.	21 cts. per lb.
3 lb.	16½ cts. per lb.	21 cts. per lb.
3½ lb.	16 cts. per lb.	21 cts. per lb.
4 lb.	15 cts. per lb.	21 cts. per lb.
5 lb.	14 cts. per lb.	19¼ cts. per lb.
6 lb.	13 cts. per lb.	18½ cts. per lb.
7 lb.	12 cts. per lb.	18 cts. per lb.
8 lb.	12 cts. per lb.	
9 lb.	12 cts. per lb.	
10 lb.	12 cts. per lb.	
12 lb.	12 cts. per lb.	
14 lb.	11½ cts. per lb.	
16 lb.	11½ cts. per lb.	

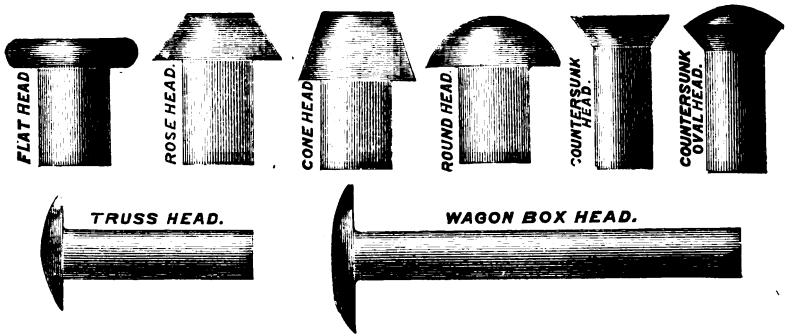
No. 7 WIRE HAME RIVETS.



All lengths 15 cents per pound.

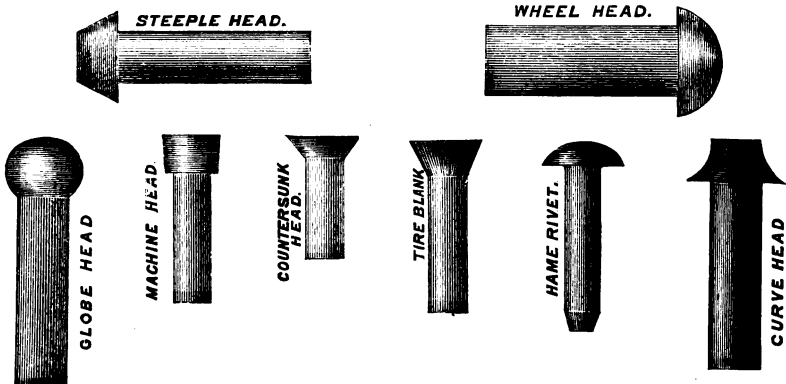
In bulk or 1 pound packages.

Rivets.

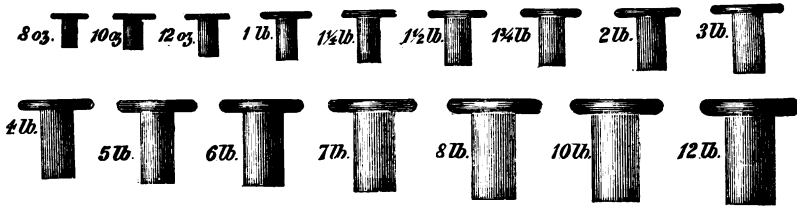


IN BULK.

Diameter.	Per Pound.
$\frac{3}{8}$ and $\frac{1}{2}$ wire, all lengths	10 $\frac{1}{2}$ cents.
$\frac{7}{8}$, Nos. 1 and 2 wire, all lengths	11 $\frac{1}{2}$ cents.
$\frac{1}{2}$ and No. 4 wire, all lengths	12 cents.
Nos. 5 and 6 wire, all lengths	13 cents.
$\frac{3}{8}$ wire, $\frac{1}{2}$ inch and longer	13 cents.
No. 7 wire, $\frac{1}{2}$ inch and longer	15 cents.
No. 8 wire, $\frac{1}{2}$ inch and longer	16 cents.
No. 9 wire, $\frac{1}{2}$ inch and longer	18 cents.
No. 10 wire $\frac{1}{2}$ inch and longer	19 cents.
No. 11 wire, $\frac{1}{2}$ inch and longer	20 cents.
No. 12 wire, $\frac{1}{2}$ inch and longer	21 cents.
No. 13 wire, $\frac{1}{2}$ inch and longer	25 cents.
No. 14 wire, $\frac{1}{2}$ inch and longer	27 cents.



Rivets.

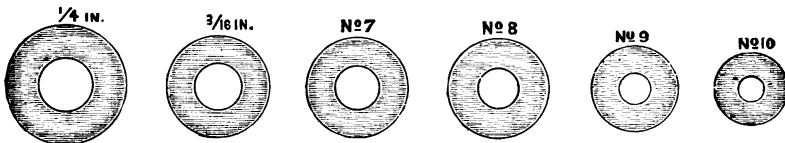


IN PAPER PACKAGES.

Size.	Black, per M.	Tinned, per M.
8 oz.	28 cents.	33 cents.
10 oz.	31 cents.	36 cents.
12 oz.	34 cents.	40 cents.
1 lb.	38 cents.	45 cents.
1 1/4 lb.	42 cents.	50 cents.
1 1/2 lb.	46 cents.	55 cents.
1 3/4 lb.	50 cents.	60 cents.
2 lb.	55 cents.	65 cents.
2 1/2 lb.	63 cents.	75 cents.
3 lb.	70 cents.	90 cents.
3 1/2 lb.	78 cents.	\$1.05
4 lb.	85 cents.	1.20
5 lb.	\$1.00	1.40
6 lb.	1.20	1.60
7 lb.	1.35	1.80
8 lb.	1.50	
9 lb.	1.65	
10 lb.	1.80	
12 lb.	2.10	
14 lb.	2.40	

Oval or countersunk heads, or extra lengths, 5 cents per M in addition to the above prices.

RIVETING BURRS.

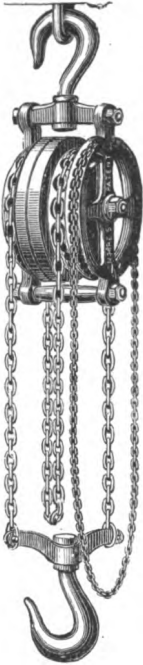


Riveting Burrs, black, $\frac{1}{4}$ and $\frac{3}{16}$, 25 cents per pound; Nos. 7, 8, and 9, 30 cents per pound; Nos. 10 and 11, 35 cents per pound.

Tinned, 5 cents per pound extra.

Moore's Differential Pulley Blocks.

PATENTED OCTOBER 3, 1871.



THE PROVIDENCE TOOL CO. have recently begun the manufacture of these celebrated blocks, of which the English manufacturers have already sold upwards of 20,000. They have proved to be the only durable and economical differential blocks made, and in England and on the Continent of Europe are rapidly superseding all others.

The following are a few of the distinguishing features of these blocks:—

They will raise the maximum load with a minimum power exerted. They are very simple in construction and are no trouble to keep in order.

The lifted weight cannot run down of its own accord when suspended. Both chains take an equal share of the load lifted, thus causing the block to hang plumb.

If desired a hook can be attached to each end of the lifting chain, so that when one load is raised the chain is in position for raising another without necessitating the lowering again of the hook.

These blocks can be worked with greater ease *and without the jarring and vibration* peculiar to other blocks.

Owing to the construction and design of these blocks there is the minimum of wear and tear upon the chains, which are also in strength much above the power they are specified to lift, and consequently *the links cannot stretch*. As in all differential blocks the chains work in notches in the pulley sheaves, this is a most important feature, as immediately a single link is stretched the working of the blocks is impaired.

 **When ordering please state height from ground to the hook on which the Block or Hoist is to be suspended.**

NOTE.—The Blocks of Four Tons and upwards are fitted with Spocket Wheels, and Ropes, unless specially ordered with Hand Chain.

Price List.

Capacity.	Price complete with chains.	Extra main chain per foot.	Height of Hoist. ¹
$\frac{1}{2}$ ton.	\$25.00	\$0.40	7 feet.
1 ton.	30.00	.44	8 feet.
$1\frac{1}{2}$ ton.	40.00	.48	$8\frac{1}{2}$ feet.
2 tons.	50.00	.52	9 feet.
3 tons.	70.00	.60	10 feet.
4 tons.	95.00	.70	11 feet.
5 tons.	125.00	.80	12 feet.
8 tons.	225.00	1.25	14 feet.
10 tons.	300.00	1.50	16 feet.

¹ Figures in last column denote approximate height which blocks, with regular lengths of chain, will hoist from level on which operator stands.

 For every additional foot of hoist desired two feet extra of main chain will be necessary.

Description of Moore's Differential Pulley Blocks.

Two revolving disks are mounted face to face upon a shaft. The meeting face of each disk is dished out and the periphery of each dished recess is formed into an internal toothed wheel. One disk has a tooth less in number than the other but both have the same pitch diameter.

When the disks are mounted on the shaft the space formed by the meeting or these two recesses is occupied by a pinion of smaller pitch diameter than that of the internal disk wheels. This pinion is mounted loose upon an eccentric forged in one with the shaft passing through the disks, and is carried round by the revolution of the shaft and eccentric. In revolving, the pinion rolls round the periphery of the internal wheels, and in one complete orbit the faces of the two disks move a distance equal to the pitch of one of the disk teeth, owing to the gradual displacement of the odd tooth.

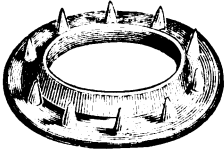
A Chain Wheel is cast on the back of each disk, and from the cross-head and hook to which the weight to be lifted is attached, two chains pass, one to the right side and one to the left side of either disk chain wheel. The loose ends pass over and are connected at a convenient distance below the block, forming a loop which rises as the weight is lowered, and *vice versa*.

The eccentric shaft is made to revolve by a hand chain wheel keyed to it, the wheel being worked by an endless hand chain, and the machine is supported in a suitable frame with a suspending hook at the top to attach to a beam or other means of support.

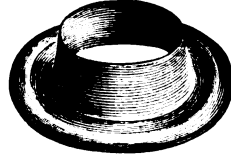
The differential power is obtained by the gradual displacement of the odd tooth in the revolution of the pinion.

The disks are perfectly free to move either way round in the frame, but the weight coming half on the right side and half on the left perfectly balances the block, and keeps the lifting chains plumb and fair under the centre of the block. One advantage of this system is that the weight cannot run down when left suspended.

Grommets.



Cast Brass.



Sheet Brass.

Patent Conical Pointed, Rolled Rim, of Sheet, and Cast Brass.

Numbers,	2	3	4	5	6	7	8
Diam. of hole as inserted,	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{8}$ in.
Price per gross,	\$2.00	2.70	3.60	4.75	5.50	7.65	8.10

Nos. 7 and 8 correspond in size with Nos. 8 and 9 of the Wilcox Patent.

The Conical Points keep the canvas in place while setting, and cannot be pulled out when inserted, making the most durable Grommet in use.

Galvanized Iron and Brass Grommets.

Numbers,	1	2	3	4	5	6	7	8	9	10
Per gross, galv.,	\$1.80	2.00	2.70	3.60	4.75	5.50	7.00	7.65	8.10	9.00
Per gross, brass,	1.80	2.00	2.70	3.60	4.75	5.50	7.65	8.10	10.35	12.00

Conical Pointed Navy Grommets.

Patent. Oblong.



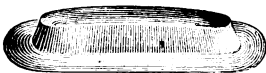
Cast Brass.



Sheet Brass

Price, \$6.00 per gross.

Oblong Mail-Bag Grommets.



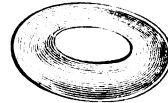
Price, \$5.00 per gross.

Sheet Brass Grommets.



With Teeth.

Numbers,	1	2	3	4	5
Diam. of hole as inserted,	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$ inch.
Price per gross,	\$1.80	2.00	2.70	3.00	3.60



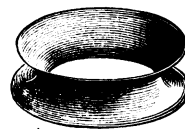
With Washers.

Numbers,	0	1	2	3	4	5
Diam. of hole as inserted,	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$ inch.
Price per gross,	\$0.70	1.80	2.00	2.70	3.00	3.60

Eyelet Grommets.



Before being inserted.



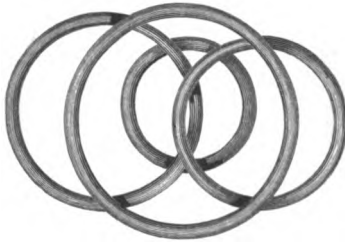
After being inserted.

Sheet Brass.

Numbers,	1	2	3	4	5	6	7	8	9	10	15
Diam. of hole,	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	2
Per gross,	\$1.15	1.35	1.60	1.80	2.25	2.70	3.15	5.00	5.85	6.75	8.50

Grommet Rings.

Galvanized.



Inside Diameter.	Light, per Gross.	Heavy, per Gross.
$\frac{3}{8}$ inch	\$0.35	\$0.50
$\frac{1}{2}$ inch	.40	.55
$\frac{5}{8}$ inch	.45	.70
$1\frac{1}{8}$ inch	.55	.80
$\frac{3}{4}$ inch	.65	.90
$1\frac{1}{4}$ inch	.70	1.15
$\frac{7}{8}$ inch	.85	1.20
$1\frac{3}{8}$ inch	1.00	1.35
1 inch	1.15	1.60
$1\frac{1}{2}$ inch	1.30	2.00
$1\frac{5}{8}$ inch	1.60	2.50
$1\frac{1}{2}$ inch	2.00	3.15
$1\frac{3}{4}$ inch	2.60	3.60
$1\frac{1}{2}$ inch	3.00	4.00
$1\frac{3}{4}$ inch	3.85	5.40
2 inches	4.75	7.20
$2\frac{1}{4}$ inches	—	8.55
$2\frac{1}{2}$ inches	—	9.25
$2\frac{3}{4}$ inches	—	11.70
3 inches	—	13.00

Used by Sail-makers in place of the Line or Rope Grommet.

Always measure the hole in the clear when ordering.

$1\frac{1}{2}$ inch, and all smaller sizes, packed in boxes one gross each.

$1\frac{3}{4}$, 2, and $2\frac{1}{4}$ inch, packed in boxes one half gross each.

$2\frac{1}{2}$, $2\frac{3}{4}$, and 3 inch, packed in boxes one quarter gross each.

Steel Grommet Chisels.

Price, 40 cents each.

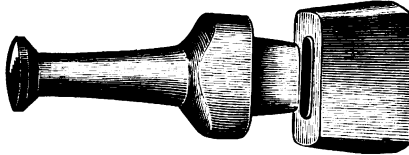
Setting Dies

**For Inserting Patent Rolled Rim, Conical Pointed,
Sheet Brass, and Eyelet Grommets.**



Nos.	0	1	2	3	4	5	6	7	8
Price per set,	\$2.00	2.15	2.25	2.35	2.50	2.70	2.80	3.00	3.15

Setting Dies for Oblong Grommets.



Price, \$10.00 per set.

Steel Cutting Punches.

REGULAR.



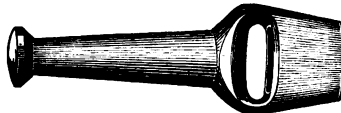
Nos.	0	1	2	3	4	5	6	7	8	9	10
Price each, \$	1.00	1.10	1.20	1.30	1.50	1.75	2.00	2.25	2.50	2.75	3.00

Side Cutting Punches.

Nos.	0	1	2	3	4	5	6	7	8	9	10
Price each, \$	0.50	.50	.50	.65	.75	.80	1.00	1.50	1.75	2.25	2.50

CUTTING

Punches for Oblong Grommets.



Price, \$3.00 each.

Wrought Iron Clews.



Ship Clews with Bar.



Ship Clews with Bow.



Spectacle Clew.



Ship's Course Clew.

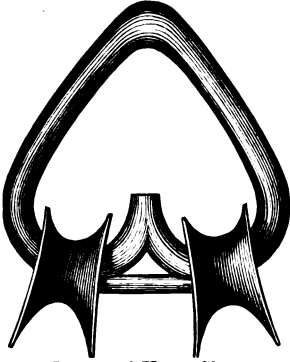
Sizes, diam. directly over the Eye, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{3}{8}$, $1\frac{1}{2}$ in.

Price, Black, 13 cts. per pound.

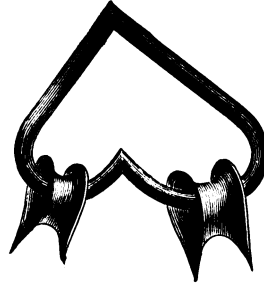
Galvanized, 16 cts. per pound.

In ordering, please give name of the Clew as printed above.

Wrought Iron Clews.



Improved Heart Clew.



Earring Heart Clew.

Price, Black, 13 cents per pound; Galvanized, 16 cents per pound.



Ring Clew.

Sizes, $\frac{1}{2}$, $\frac{3}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{3}{8}$, $1\frac{1}{2}$ inch.

Price, Ring Clews, Black, 10 cts. per lb.; Galvanized, 13 cts. per lb.

In ordering, give size of Ring Clews in the clear, as well as Diameter of the Iron, with width of Thimble, outside measure, and across the score.

Bench Sail Hooks.

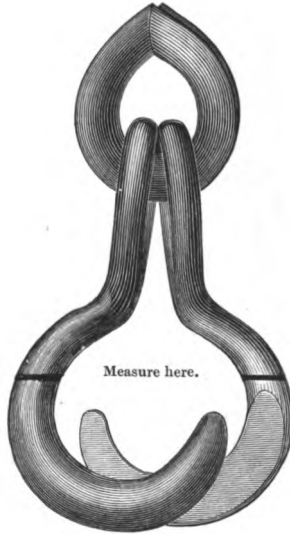


Small plain, \$1.00 per dozen; Large plain, \$1.25 per dozen:

Brass swivel, \$1.50 per dozen; Flat, 60 cents each.

Sailmakers' Sister Hooks.

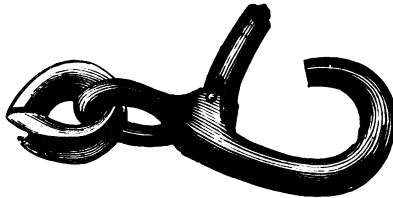
Wide-spread.



Diameter under eye $\frac{1}{2}$, $\frac{9}{16}$, $\frac{5}{8}$, $\frac{3}{4}$. Galv. 18 cts., Black 15 cts. per lb.
 Diameter under eye $\frac{3}{8}$, $\frac{7}{16}$. . . Galv. 24 cts., Black 21 cts. per lb.

Self-Mousing Gaff-topsail Hooks.

Galvanized.



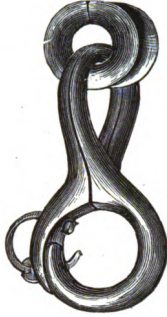
Henshaw's Patent.

Sizes,	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	inch.
Price,	\$0.35	.40	.80	.90	1.00	each.

$\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$ Wrought Iron, $\frac{7}{16}$ and $\frac{1}{2}$ inch Malleable Iron.

Gaff-topsail Hooks.

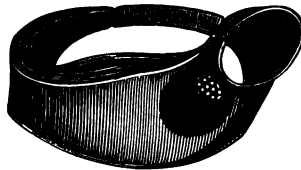
Galvanized.



W. Coleman & Son's Patent.

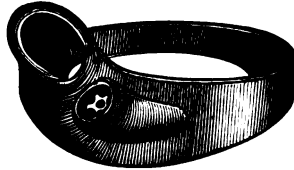
Sizes. Inch.	Score of Thimble. Inch.	Price Each.	Tested to Pounds.	Breaking Strain. Pounds.
$\frac{1}{2}$	$\frac{1}{2}$	\$0.20	1,300	2,551
$\frac{5}{16}$	$\frac{1}{2}$	.25	1,300	2,597
$\frac{3}{8}$	$\frac{5}{8}$	.30	1,700	3,592
$\frac{7}{16}$	$\frac{7}{8}$	.40	1,900	3,781
$\frac{1}{2}$	$\frac{7}{8}$	.50	2,100	5,769
$\frac{9}{16}$	1	.55	2,100	5,000
$\frac{5}{8}$	$\frac{7}{8}$	.75	3,000	6,000
$1\frac{1}{8}$	1	.95	4,400	7,600
$\frac{3}{4}$	$1\frac{1}{8}$	1.15	5,500	13,400
$\frac{7}{8}$	$1\frac{1}{4}$	1.40	6,300	15,700

Sail-Makers' Extra Palms.



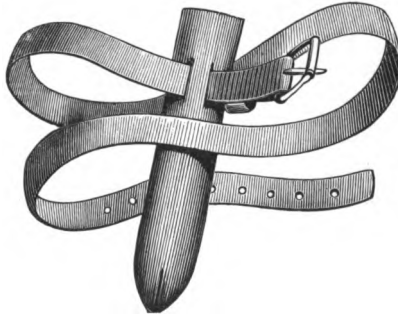
Cribby's Seaming	\$2.00 each.
Cribby's Roping	2.50 each.
Haislett's Seaming	2.00 each.
Haislett's Roping	2.50 each.
Mullen's Seaming	3.00 each.
Mullc	3.50 each.

Sailors' Palms.



		Per doz.
No. 1.	Common Hide	\$1.50
No. 2.	Regular Hide	2.00
No. 3.	Brass, no Hide	2.00
No. 4.	Hide and Brass	2.25
No. 5.	Hide, mounted with Buckle	2.50
No. 6.	All Hide, seaming, Extra Stitched, with Buckle	5.25
No. 7.	All Hide, Seaming, Extra Stitched	6.50
No. 8.	All Hide, Roping, Extra Stitched	8.00
No. 9.	Hand-made Seaming	10.00
No. 10.	Hand-made Roping	12.00

Sheaths and Belts.



No. 1.	Common, Belts $\frac{3}{4}$ inch wide	\$2.75 per dozen.
No. 2.	Regular, Belts 1 inch wide	3.50 per dozen.
No. 3.	Best Quality Belts, 1 inch wide	4.25 per dozen.

Sheath Knives. Prices given on application.

Short Square Sail Needles.

Lolleys.



	Per 100		Per 100.
No. 17.	Flat seam \$1.35	No. 12.	Small bolt-rope . \$2.75
No. 16.	Tabline 1.35	No. 11.	Middle bolt-rope . 3.30
No. 15.	Old work 1.45	No. 10.	Large bolt-rope . 3.70
No. 14.	Store 1.60	No. 9.	Small marline . 5.00
No. 13.	Head-rope 2.10	No. 8.	Large marline . 6.00

Long Square Sail Needles.

James Smith & Sons.



No. 17		\$1.30 per hundred.
No. 17½		1.30 per hundred.
No. 16		1.30 per hundred.
No. 16½		1.30 per hundred.
No. 15		1.30 per hundred.
No. 15½		1.30 per hundred.
No. 14		1.50 per hundred.
No. 14½		1.75 per hundred.
No. 13		2.75 per hundred.
No. 12		3.60 per hundred.
No. 11		5.50 per hundred.
No. 10		6.50 per hundred.
No. 9		7.50 per hundred.
No. 8		8.50 per hundred.

When ordering, state whether Long or Short Square.

Packing or Sack Needles.

Smith & Sons.



No. 14.	3 inches long		\$2.00 per hundred.
No. 13.	3½ inches long		2.00 per hundred.
No. 12.	4 inches long		2.25 per hundred.
No. 11.	4½ inches long		2.67 per hundred.
No. 10.	5 inches long		3.00 per hundred.
No. 9.	6 inches long		4.00 per hundred.
No. 8.	6½ inches long		4.33 per hundred.
No. 7.	7 inches long		5.33 per hundred.
No. 6.	8½ inches long		8.00 per hundred.

Standing Fids.



Best seasoned Hickory only used.

Numbers,	1	2	3	4
Size of butt,	4	5	6	6½
Length,	30	32	36	40
Price,	\$1.50	2.00	2.50	3.00

Hand Fids.



Numbers,	1	2	3	4
Sizes,	14	16	18½	20½ inches long.
Price,	25	30	35	40 cents each.

Made of the best seasoned walnut, and turned hollowing.

Sailmakers' Prickers.



Best Tool Steel. Wood Handles.

No. 1.	10 inches long		\$0.75 each.
No. 2.	10½ inches long		.90 each.
No. 3.	8 inches long		4.50 per dozen.

No. 3 are for ship's use.

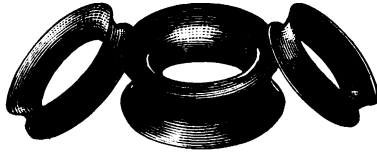
Sailmakers' Marline Spikes.



No. 1.	13 inches long		\$2.00 each
No. 2.	14½ inches long		2.25 each.

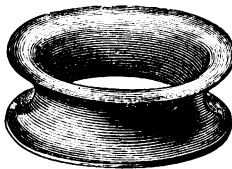
These goods are of superior quality and finish.

Galvanized Iron Thimbles.



Outside Diameter. Inches.	Light, Per dozen.	Heavy, Per dozen.	(Navy Pattern.) Extra Heavy, Per dozen.	LIP or SADDLE. Per dozen.
$\frac{3}{4}$	\$0.25	—	—	—
$\frac{7}{8}$	.30	—	—	—
1	.35	—	—	—
$1\frac{1}{8}$	.38	—	—	—
$1\frac{1}{4}$	.40	—	—	—
$1\frac{3}{8}$	.40	—	—	—
$1\frac{1}{2}$	.45	—	—	—
$1\frac{3}{4}$	.50	—	—	—
2	.60	\$0.70	\$1.15	—
$2\frac{1}{4}$	.70	.85	1.35	\$1.35
$2\frac{1}{2}$	.80	1.25	1.80	1.60
$2\frac{3}{4}$	.95	1.60	2.00	1.80
3	1.10	1.70	2.35	2.25
$3\frac{1}{4}$	1.35	1.90	2.70	2.70
$3\frac{1}{2}$	1.70	2.15	3.00	3.50
$3\frac{3}{4}$	2.12	2.80	3.60	—
4	—	3.25	4.00	4.00
$4\frac{1}{4}$	—	3.60	4.50	—
$4\frac{1}{2}$	—	4.30	5.65	—
$4\frac{3}{4}$	—	5.40	6.10	—
5	—	6.30	6.55	—

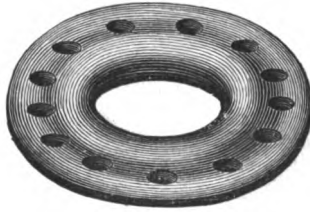
Brass Thimbles.



Sizes,	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2 inches.
Price,	\$0.65	.70	.75	1.00	1.25	1.50 per dozen.

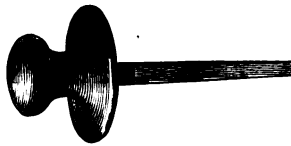
$2\frac{1}{4}$ to 5 inches inclusive, 70 cts. per pound.

Improved Iron Buntline Leaders.



Galvanized, \$2.00 per dozen.

Brass-headed Grommet Knobs.



To be used with No. 3, R. R. C. P. Grommets, on page 21, for Carpets, Matting, etc., on steamboats, railroad cars, halls, and large rooms.

Price for knobs \$5.50 per gross.

Lizzard's or Buntline Bull's Eyes.

Lignum-vitæ.



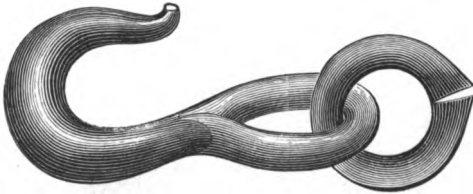
No. 850.

Diameter. Inches.	Price per Dozen.	Thickness. Inches.	Diameter of Hole. Inches.	Width of Score. Inches.	Depth of Score Inches.
1	\$0.60	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{16}$
$1\frac{1}{4}$	.60	$\frac{11}{8}$	$\frac{1}{2}$	$\frac{5}{16}$	$\frac{1}{8}$
$1\frac{1}{2}$	.70	$\frac{7}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{1}{8}$
$1\frac{3}{4}$	.70	1	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{16}$
2	.80	$1\frac{1}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{16}$
$2\frac{1}{4}$	.90	$1\frac{1}{4}$	$\frac{7}{8}$	$\frac{9}{16}$	$\frac{1}{4}$
$2\frac{1}{2}$	1.00	$1\frac{3}{8}$	1	$\frac{5}{8}$	$\frac{1}{4}$
$2\frac{3}{4}$	1.20	$1\frac{3}{8}$	$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{1}{4}$
3	1.50	$1\frac{1}{2}$	$1\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{4}$
$3\frac{1}{4}$	1.70	$1\frac{5}{8}$	$1\frac{1}{4}$	$\frac{7}{8}$	$\frac{5}{16}$
$3\frac{1}{2}$	2.00	$1\frac{3}{4}$	$1\frac{3}{8}$	1	$\frac{5}{16}$
$3\frac{3}{4}$	2.40	$1\frac{7}{8}$	$1\frac{3}{8}$	1	$\frac{5}{16}$
4	2.80	2	$1\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{8}$
$4\frac{1}{4}$	3.20	$2\frac{1}{8}$	$1\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{8}$
$4\frac{1}{2}$	3.70	$2\frac{1}{4}$	$1\frac{5}{8}$	$1\frac{1}{4}$	$\frac{7}{16}$
$4\frac{3}{4}$	4.75	$2\frac{3}{8}$	$1\frac{5}{8}$	$1\frac{1}{4}$	$\frac{7}{16}$
5	5.50	$2\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{3}{8}$	$\frac{7}{16}$

These are the regular dimensions for Sailmakers' use. When ordering, it is necessary to give sizes in *left hand column only*.

Tackle Hooks and Thimbles.

Wrought Iron.



For Size, Measure Diameter of Iron in the Middle of Bend.

Sizes, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ inch.

Price per dozen, Japanned, \$1.50. Galvanized, \$1.75.

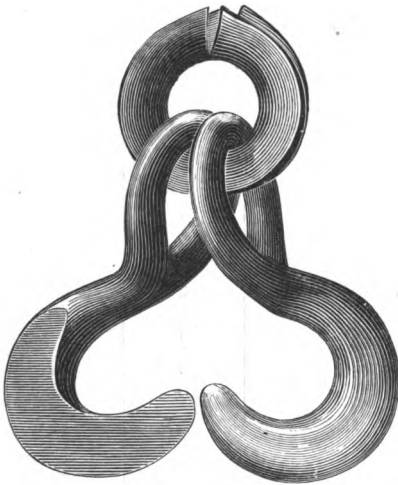
Sizes, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{3}{8}$, $1\frac{1}{2}$, $1\frac{5}{8}$, $1\frac{3}{4}$, 2, $2\frac{1}{4}$, $2\frac{1}{2}$ inch.

Price per pound, Japanned, 15 cts. Galvanized, 19 cts.

MATCH OR

Sister Hooks and Thimbles.

Wrought Iron.



For Size, Measure Diameter of Iron in the Middle of Bend, with Hooks Closed.

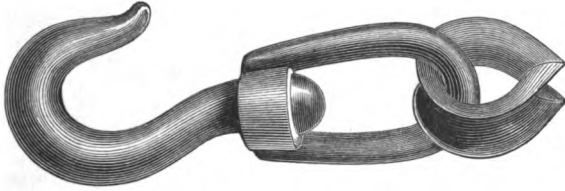
Sizes, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ inch.

Price per dozen, Japanned, \$2.00. Galvanized, \$2.50.

Sizes, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{3}{8}$, $1\frac{1}{2}$, $1\frac{5}{8}$, $1\frac{3}{4}$, 2 inch.

Per pound, Japanned, 18 cts. Galvanized 22 cts.

Swivel Hooks.



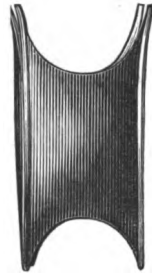
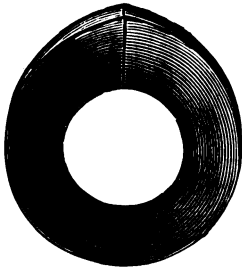
With or without Thimbles. Measure the same as Tackle Hooks.

Sizes, $\frac{1}{2}$, $\frac{3}{4}$ inch. Per doz., Japanned, \$3.00. Galvanized, \$3.50.

Sizes, $\frac{3}{4}$, 1 inch, 30 cts. per pound. 1, $1\frac{1}{2}$, $1\frac{3}{4}$ inch, 25 cts. per pound.

Galvanized, 4 cts. per pound extra.

Open Thimbles.



Outside diameter from edge to edge, $\frac{3}{4}$, 1, $1\frac{1}{2}$ inch.

Price, Japanned, 24 cts. per doz. Galvanized, 28 cts. per doz.

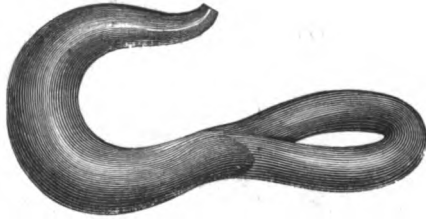
Outside diameter from edge to edge, $1\frac{3}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2, $2\frac{1}{4}$, $2\frac{1}{2}$, $2\frac{3}{4}$, 3, $3\frac{1}{4}$,

$3\frac{1}{2}$, $3\frac{3}{4}$, 4, $4\frac{1}{2}$, 5, $5\frac{1}{2}$, 6 inches. Price, 17 cts. per lb.

Galvanized, 21 cents per pound.

Small Eyed Block Hooks.

Wrought Iron.



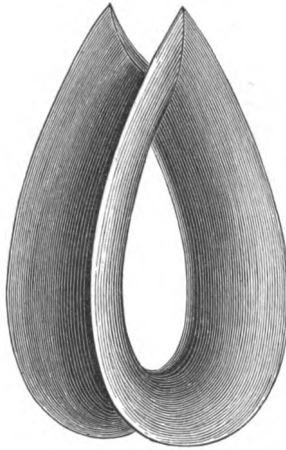
Single.

$\frac{3}{8}$ and $\frac{1}{2}$ inch, Black, \$2.00 per dozen. Galvanized, \$2.25 per dozen.
 $\frac{5}{8}$ to 2 inches, Black, 16 cts. per lb. Galvanized, 20 cts. per lb.

Double.

$\frac{3}{8}$, $\frac{7}{8}$, $\frac{1}{2}$, $\frac{9}{8}$ inch, Black, \$2.50 per doz. Galvanized, \$2.75 per doz.
 $\frac{5}{8}$ to 2 inches, Black, 20 cts. per lb. Galvanized, 24 cts. per lb.

Wire Rope Thimbles.

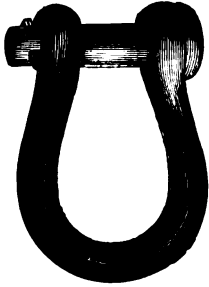


Galvanized.

Size of Rope,	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{2}$	$3\frac{3}{4}$	4	$4\frac{1}{2}$	5	inch.
Width of Score,	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	inch.
Price,	10	10	12	14	15	16	18	20	25	30	35	40	cts. each.

The size of rope corresponds with the size of rope the thimbles are required to fit.

Anchor and Chain Shackles.



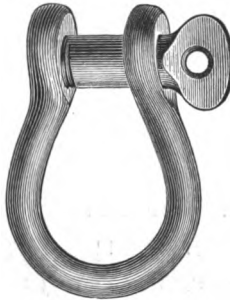
Anchor Shackle.



Chain Shackle.

$\frac{1}{2}$ inch, Galvanized, 27 cts. per lb. Black, 24 cts. per lb.
 $\frac{3}{4}$ inch, Galvanized, 23 cts. per lb. Black, 20 cts. per lb.
 $\frac{1}{2}$ inch and larger, Galvanized, 19 cts. per lb. Black, 16 cts. per lb.

Screw Anchor Shackles.



Sizes,	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1 in.
Price, Plain,	\$2.75	2.75	3.00	3.50	4.00	4.50	5.00	5.50	7.00	10.00
Price, Galv.,	3.00	3.00	3.25	3.85	4.46	5.00	5.75	6.75	8.70	13.35

Chain Shackle with Screw at same price as Anchor Shackle with Screw.

Chain Punches.



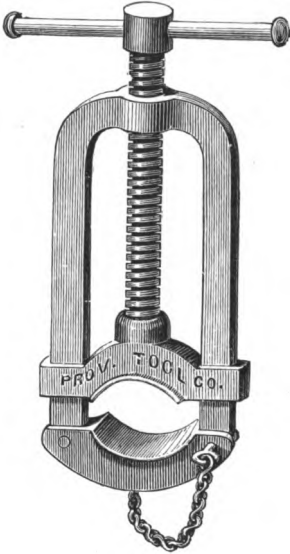
Price, \$3.60 per dozen.

Chain Hooks.



$\frac{1}{2}$ in. iron, Black, 14 cents per pound. Galv., 17 cents per pound.

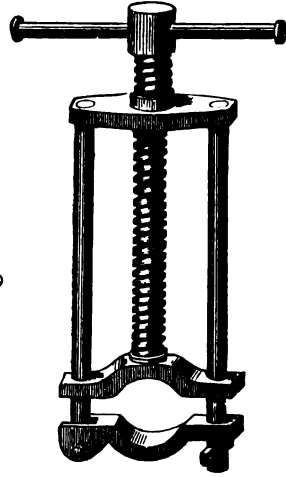
Rigger Screws.



Nos. 1 and 3.



No. 4.



No. 2.

No. 1. Composition Heads.

Sizes,	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$ inch screws.
Price, \$	4.50	6.00	8.00	10.25	13.00	16.00 each.

No. 2. Wrought Iron.

Sizes,	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$ inch screws.
Price, \$	2.75	3.50	4.75	6.25	8.00 each.

No. 3. Cast Iron Heads.

Sizes,	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$ inch screws.
Price, \$	2.50	2.75	3.75	4.50	8.50 each.

No. 4. Lobster Claw.

Sizes,	$\frac{7}{8}$	1	$1\frac{1}{8}$ inch screws.
Price,	\$3.00	3.25	3.50 each.

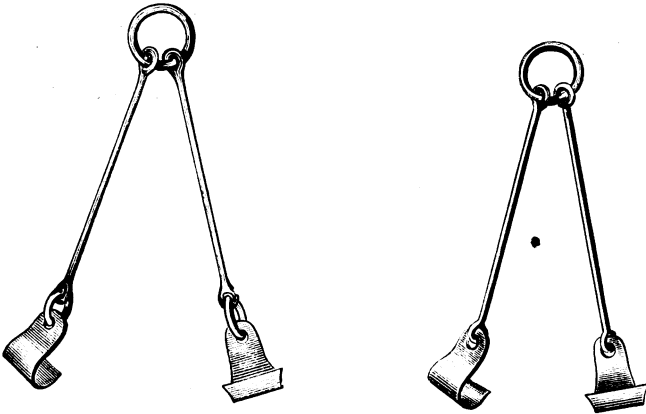
Tin Fog Horns.



With Brass Reeds. Extra quality of Tin.

No. 1	2	3	4
14	20	31	40 inches long.
\$1.25	4.00	8.00	10.00 per dozen.

Barrel or Can Hooks.

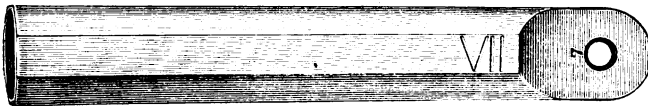


Sizes, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ inch.

Price, 14 cts. per pound; Galvanized, 17 cts. per pound.

$\frac{3}{8}$ inch are used for kegs; $\frac{1}{2}$ inch are used for barrels; $\frac{5}{8}$ inch are used for tierces; $\frac{3}{4}$ inch are used for hogsheads.

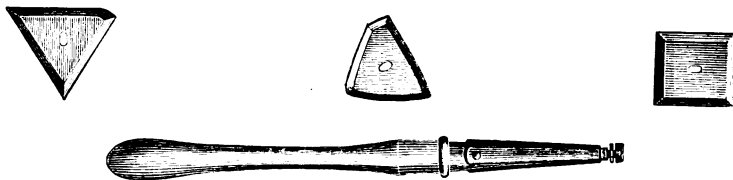
Sounding Leads.



All weights, per lb., 10 cents.

Ship Scrapers.

GIBBS'S PATENT.



Wood Handles. Triangular Blades. Wrought Iron Sockets.

- No. 1. Blades, $\frac{1}{4}$ inch thick, Iron and Steel welded \$7.50 per doz.
 No. 1 $\frac{1}{2}$. Blades, $\frac{1}{4}$ inch Steel, extra finish . . . 12.00 per doz.
 No. 2. Blades from No. 14 Best Cast Steel . . 5.50 per doz.
 No. 3. Blades from No. 14 Steel, black sockets . 3.50 per doz.
 No. 4. Blades from No. 14 Steel, 2 $\frac{1}{2}$ inches square 5.50 per doz.
 No. 5. Blades from No. 14 Steel, 5 feet handles . 9.00 per doz.

Harpoons.



Price, \$12.00 per dozen.

Lily Irons.



Price, \$14.00 per dozen.

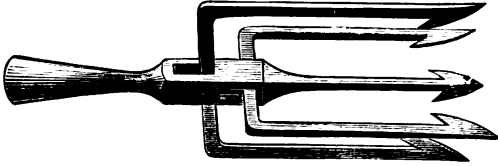
Toggle Irons.

Steel Pins.



Price, \$13.00 per dozen.

Five Prong Grains.



Price, \$13.00 per dozen.

Ankle and Wrist Shackles.

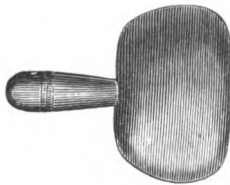


Ankle Shackles \$25.00 per dozen.

Wrist Shackles 15.00 per dozen.

Chains and Balls furnished of any length or weight.

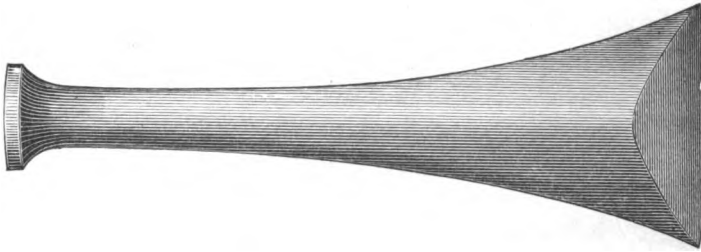
Walnut Mallets.



Diameter,	4	5	6	6½	7	7½	8 in.
Price,	\$0.75	.85	1.00	1.45	1.75	2.00	2.25 each.

Assorted, by the Barrel, \$24.00.

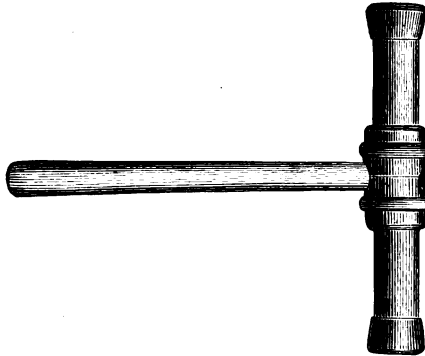
Calkers' Tools.



Marked Prov. Tool Co. BEST CAST-STEEL.
Also, C. Drew & Co.

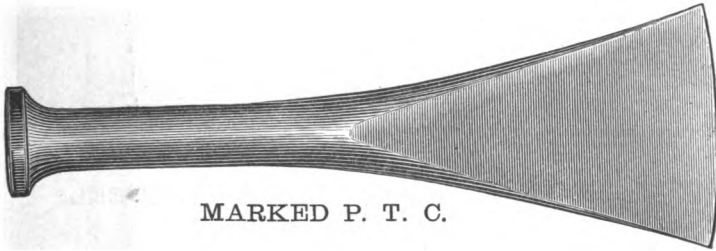
	Per doz.		Per doz.
Calking Irons	\$8.00	Single Crook Irons . .	\$10.00
Making Irons	8.00	Double Crook Irons . .	10.50
Sharp Irons	10.50	Treenail Irons	6.50
Deck or Dumb Irons . .	9.00	Coppering Hammers . .	12.00
Clearing Irons	7.00	Coppering Punches . .	6.00
Spike Irons	6.50	Rochester or Western Pat'n	12.50

Calking Mallets.



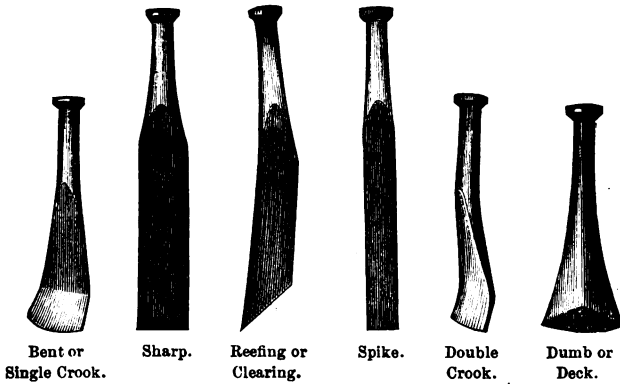
	Per doz
No. 0, Steel Rings, Polished Wood, made to order . . .	\$32.00
No. 1, Steel Rings, Polished Wood, made to order . . .	25.00
No. 2, Steel Rings, Varnished Wood, regular	24.00
No. 3, Steel Rings, Varnished Wood, second quality . . .	21.00
No. 4, Iron Rings, Polished Wood, extra	24.00
No. 5, Iron Rings, Polished Wood	22.50
No. 6, Iron Rings, Varnished Wood, regular	20.00
No. 7, Iron Rings, Varnished Wood, second quality . . .	18.00
No. 8, Iron Rings, Polished Wood, White Oak	15.00

Calking Irons.



MARKED P. T. C.

No. of Crease,	0	1	2	3
Price per dozen,	\$4.50	4.65	4.75	4.85



Bent or
Single Crook.

Sharp.

Reefing or
Clearing.

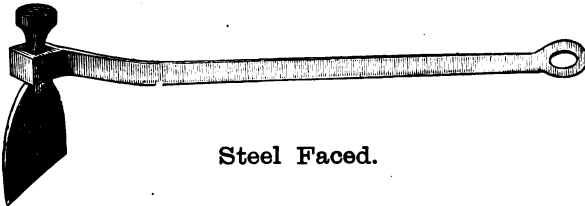
Spike.

Double
Crook.

Dumb or
Deck.

Price, \$5.50 per dozen.

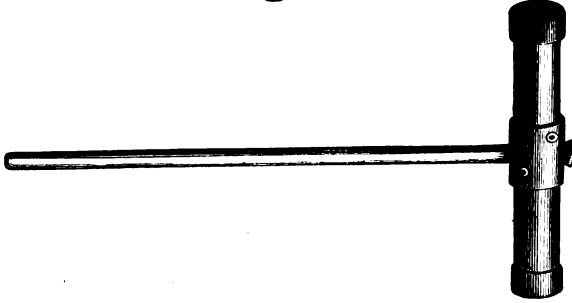
Hawsing Irons.



Steel Faced.

Price per dozen, Black, \$15.00. Polished, \$17.00 per dozen.

Hawsing Mallets.



Price per dozen, Live Oak, extra, \$26.50.

Price per dozen, Live Oak, . . 21.50.

Price per dozen, White Oak, . 19.50.

Marline Spikes.



Japanned, Steel Points.

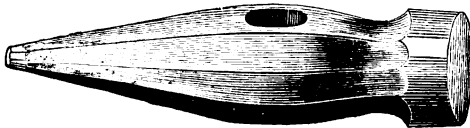
Sizes, 10, 11, 12, 13, 14, 15, 16 inch. Price, 18 cents per pound.

Polished, Steel Points.

Sizes,	10	11	12	13	14	15	16 inches.
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Price, \$	4.00	4.50	5.00	5.50	6.50	7.50	9.50 per dozen.
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Top Mauls.

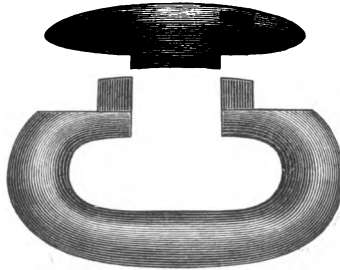


Steel Face and Points.

Weight from 3 to 9 pounds. Price, 25 cents per pound.

Connecting Shackles.

Wrought Iron Improved.

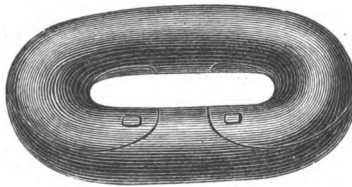


Size corresponds with Size of Chain.

Size of Iron, $\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Per dozen, \$2.50	2.63	2.75	2.88	3.00	3.25	3.50	3.75	4.00	5.00	6.00

Connecting Shackles.

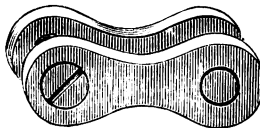
Thompson's Patent.



Size of Iron, $\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$	1 in.
Per dozen, \$2.50	2.60	2.75	2.87	3.10	3.38	3.62	4.00	4.25	6.00	7.25

Connecting Shackles.

Common.



Size corresponds with Size of Chain.

Sizes, $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 inch.
Price, \$1.75	1.87 $\frac{1}{2}$	2.00	2.12 $\frac{1}{2}$	2.25	2.37 $\frac{1}{2}$	2.75 per dozen.

Jib Hanks.

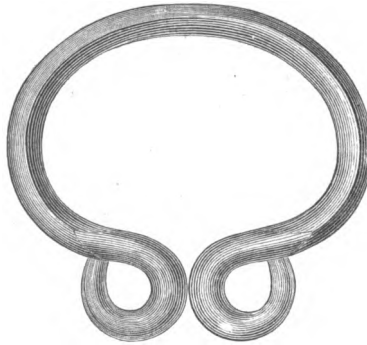
Wrought Iron. Galvanized.



Single Stay.

Inside diam. in.	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3
Price per doz.	\$0.50	.65	.70	.75	.80	.90	1.00	1.15	1.30	1.50

Inside diam. in.	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4	$4\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{3}{4}$	5	$5\frac{1}{2}$	6
Price per doz.	\$1.75	2.25	2.70	3.00	3.25	3.50	3.75	4.00	4.50	5.00



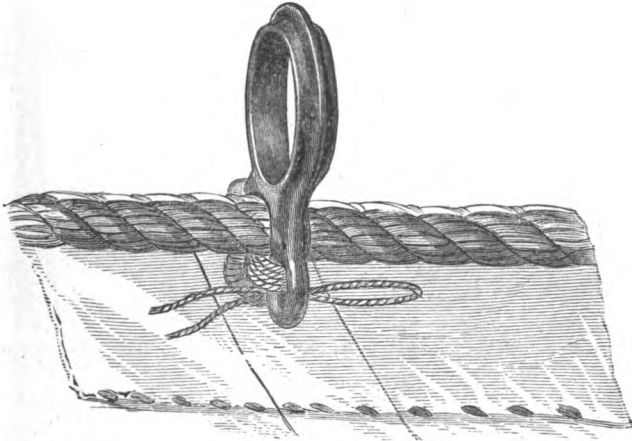
Double Stay.

Inside long diam. in.	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$
Price per dozen,	\$0.70	.75	.85	.90	1.00	1.10	1.30	1.45

Inside long diam. in.	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Price per dozen,	\$1.65	2.00	2.50	3.30	3.85	4.50	5.00	5.50

Jib Hanks.

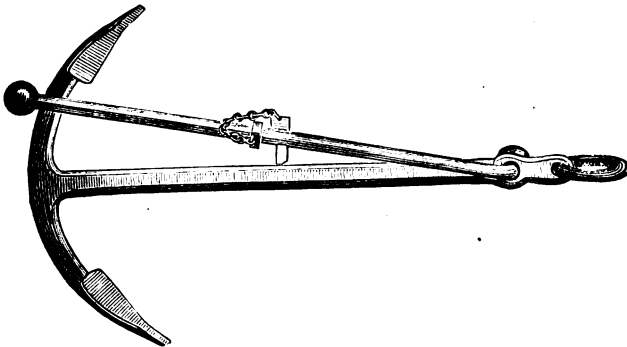
Improved Pattern.



No. 1.	Diameter of Hole, $\frac{3}{4}$ inch.	\$0.50 per dozen.
No. 2.	Diameter of Hole, 1 inch.	.65 per dozen.
No. 3.	Diameter of Hole, $1\frac{1}{4}$ inch.	.70 per dozen.
No. 4.	Diameter of Hole, $1\frac{1}{2}$ inch.	.80 per dozen.
No. 5.	Diameter of Hole, $1\frac{3}{4}$ inch.	1.00 per dozen.

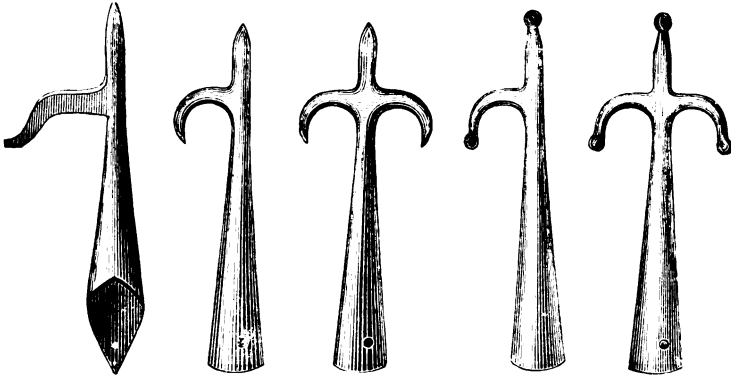
This Hank always stands out stiff or square from the Bolt Rope, and cannot GET FOUL.

Anchors.



Size, 4 and 5 pounds.	Black Wrought Iron, 14 cents per lb.
Size, 6 to 10 pounds.	Black Wrought Iron, 13 cents per lb.
Size, 10 to 15 pounds.	Black Wrought Iron, 12 cents per lb.
Size, 15 to 35 pounds.	Black Wrought Iron, 10 cents per lb.
Size, 35 lbs. and larger.	Black Wrought Iron, 9 cents per lb.
Galvanized Anchors, 3 cents per pound additional.	

Boat Hooks.



Wrought Iron. Single, sharp. Double, sharp. Single Navy. Double Navy.

Wrought Iron.

POLISHED POINTS OR GALVANIZED, AS ORDERED.

- No. 0. Size of pole, 1 inch. Price, \$4.00 per dozen.
 No. 1. Size of pole, $1\frac{1}{4}$ inch. Price, 4.20 per dozen.
 No. 2. Size of pole, $1\frac{1}{2}$ inch. Price, 4.80 per dozen.
 No. 3. Size of pole, 2 inches. Price, 5.40 per dozen.

Single, Sharp Points.

MALLEABLE IRON, GALVANIZED.

- No. 4. Size of pole, $1\frac{1}{4}$ inch. Price, 30 cents each.
 No. 5. Size of pole, $1\frac{1}{2}$ inch. Price, 40 cents each.
 No. 6. Size of pole, 2 inches. Price, 45 cents each.

Double, Sharp Points.

- No. 7. Size of pole, $1\frac{1}{4}$ inch. Price, 40 cents each.
 No. 8. Size of pole, $1\frac{1}{2}$ inch. Price, 50 cents each.
 No. 9. Size of pole, 2 inches. Price, 75 cents each.

Single Navy, or Ball Points.

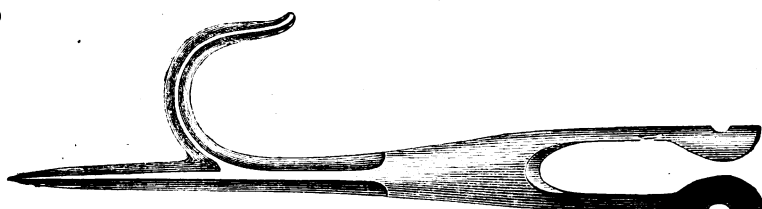
- | | | Per dozen. |
|---------|--|-------------------------|
| No. 10. | Size of pole, $1\frac{1}{4}$ inch, 40 cts. each. | Polished Brass, \$10.25 |
| No. 11. | Size of pole, $1\frac{1}{2}$ inch, 45 cts. each. | Polished Brass, 12.00 |
| No. 12. | Size of pole, 2 inches, 50 cts. each. | Polished Brass, 13.75 |

Double Navy, or Ball Points.

- | | | Per dozen. |
|---------|--|-------------------------|
| No. 13. | Size of pole, $1\frac{1}{4}$ inch, 60 cts. each. | Polished Brass, \$10.75 |
| No. 14. | Size of pole, $1\frac{1}{2}$ inch, 75 cts. each. | Polished Brass, 12.50 |
| No. 15. | Size of pole, 2 inches, \$1.00 each. | Polished Brass, 16.25 |

Improved Boat Hooks.

With or without Staff. Norcross Patent.



Price, with Staff, each.

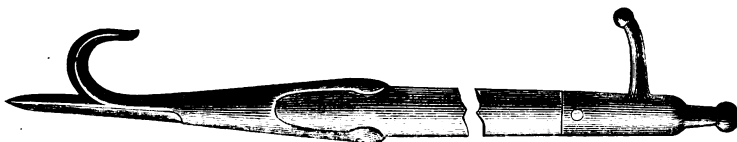
No. 20.	Length of pole, 6, 7, and 8 feet,	\$0.75, \$0.80, and \$0.85
No. 21.	Length of pole, 7, 8, and 9 feet,	.90, 1.00, and 1.10
No. 22.	Length of pole, 8, 9, and 10 feet,	1.10, 1.20, and 1.30
No. 23.	Length of pole, 9 and 10 feet,	1.30 and 1.40
No. 24.	Length of pole, 9 and 10 feet,	1.40 and 1.50

Numbers,	30	31	32	33	34
Price without staff,	25	30	40	50	60 cents each.

Composition, Finished.

Numbers,	30	31	32	33	34
Price,	\$0.75	1.00	1.25	1.50	1.75 each.

With staff, 75 cents each additional.



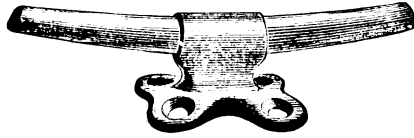
INDICATOR,

Showing how the hook stands in the water out of sight.

Price, large size	30 cents each.
Price, small size	20 cents each.

Combination Belaying Cleats.

Wood and Metal. Norcross's Improved Pattern.



No. 20.	Length of wood, 6 inches.	Price, \$0.25 each.
No. 21.	Length of wood, 7 inches.	Price, .30 each.
No. 22.	Length of wood, 8 inches.	Price, .35 each.
No. 23.	Length of wood, 9 inches.	Price, .45 each.
No. 24.	Length of wood, 10 inches.	Price, .60 each.
No. 25.	Length of wood, 11 inches.	Price, .80 each.
No. 26.	Length of wood, 12 inches.	Price, 1.00 each.

Finished Composition, double prices from above list, which is for Galvanized Iron.

In ordering, do so from No. in table, and add word "Composition."

Wrought Iron Staples.

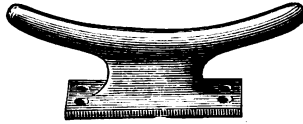


Sizes,	1	1¼	1½	1¾	2	2¼	2½	2¾	inches.
Prices, Plain,	\$0.45	.50	.55	.60	.70	.75	1.00	1.25	per gross.
Prices, Galv.,	\$0.50	.55	.65	.80	.90	1.00	1.30	1.40	per gross.
Sizes,	3	3¼	3½	4	4½	5	6	inches.	
Prices, Plain,	\$1.25	1.40	1.60	2.00	3.00	3.75	6.00	per gross.	
Prices, Galv.,	\$1.40	1.65	1.85	2.50	3.50	4.50	7.00	per gross.	

Assorted.

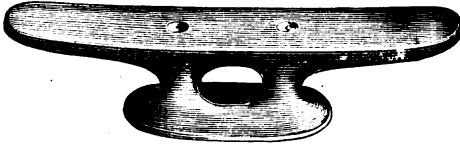
1½ to 3 inches,	Plain, \$1.00 ; Galvanized, \$1.25 per gross.
1½ to 3½ inches,	Plain, 1.25 ; Galvanized, 1.50 per gross.
1½ to 4 inches,	Plain, 1.50 ; Galvanized, 2.00 per gross.

Galvanized Iron Cleats.



Numbers,	1	2	3	4	5	6
Length,	2	3 $\frac{1}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{2}$	5 $\frac{3}{4}$	6 $\frac{1}{2}$ inches.
Price,	\$0.65	1.00	1.50	1.65	1.85	2.50 per dozen.

Cast Iron Cleats.



Sizes, 5, 7, 8 $\frac{1}{2}$ inches.

Price, 9 cents per pound; Galvanized, 12 cents per pound.

Sizes, 10 $\frac{1}{2}$, 13, 15, 18, 24, 28, 32, 36, 40 inches.

Price, 6 cents per pound; Galvanized, 9 cents per pound.

Cast Iron Chocks.



Sizes, 4, 4 $\frac{1}{2}$, 5, 5 $\frac{1}{2}$, 6, 6 $\frac{1}{2}$, 7 $\frac{1}{4}$, 8 $\frac{1}{2}$ inches long.

Price, 9 cents per lb.; Galvanized, 12 cents per lb.

Sizes, 10 $\frac{1}{2}$, 11 $\frac{1}{2}$, 13, 14, 15, 18, 20, 24, 30 inches long.

Price, 6 cents per pound; Galvanized, 9 cents per pound.

Hollow Belaying Pins.

Galvanized. Norcross Patent.



No.	Length Handle.	Length Pin.	Diam. of Pin.	Price.
4	6½ inches.	9 inches.	1 inch.	50 cents.
5	7 inches.	10½ inches.	1⅛ inches.	75 cents.
6	8 inches.	12 inches.	1¼ inches.	90 cents.

These Pins have the appearance of solid ones, the ends being closed, but are sufficiently strong; and upon trial will commend themselves as being a great improvement over the former style. Made of best air-furnace malleable iron.

Mast and Yacht Belaying Pins.

Galvanized.



No. 1.

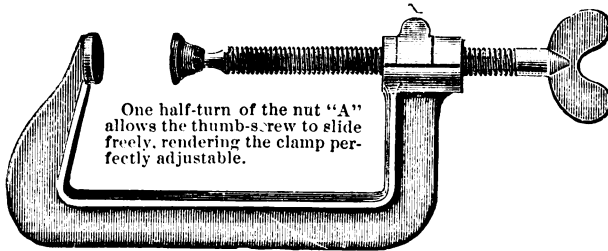
Whole length, 7¾ inch; length of shank, 4¾ inch; diameter, ¾ inch.
Price, 15 cents each.

No. 2.

Whole length, 9¼ inch; length of shank, 5¾ inch; diameter, ½ inch.
Price, 30 cents each.

Screw Clamps.

Pearson's Patent. Adjustable.



Superior to any Clamp in Market. An Economical and excellent article.

Width of opening about 2 inches	\$4.00 per dozen.
Width of opening about 3 inches	5.00 per dozen.
Width of opening about 4 inches	7.50 per dozen.
Width of opening about 5 inches	8.50 per dozen.
Width of opening about 6 inches	11.00 per dozen.
Width of opening about 7 inches	14.00 per dozen.
Width of opening about 8 inches	16.00 per dozen.
Width of opening about 10 inches	20.00 per dozen.
Width of opening about 6 inches, Swivel Clamp	12.00 per dozen.
Width of opening about 7 inches, Swivel Clamp	15.00 per dozen.
Width of opening about 8 inches, Swivel Clamp	17.00 per dozen.

Clinch Rings.

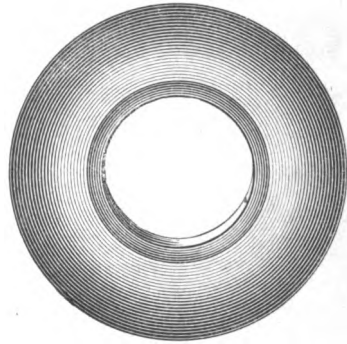
No. 1.

Please order by Numbers.

No. 2.



Straight Hole.



Countersunk Hole.

Sizes, $\frac{1}{2}$, $\frac{3}{8}$ inch hole. Price, 25 cents per pound.

Sizes, $\frac{5}{8}$, $1\frac{1}{8}$, $\frac{3}{4}$, $1\frac{3}{8}$, $\frac{7}{8}$, $1\frac{5}{8}$, 1, $1\frac{1}{4}$, $1\frac{3}{4}$, $1\frac{5}{8}$, $1\frac{3}{4}$, $1\frac{3}{8}$, $1\frac{1}{2}$ inch hole.

Price, 17 cents per pound. Galvanized, 4 cents per pound extra.

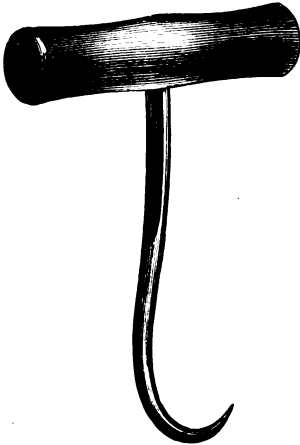
Norway Iron Clinch Rings.

Sizes, $\frac{1}{2}$, $\frac{3}{8}$ inch hole. Price, 30 cents per pound.

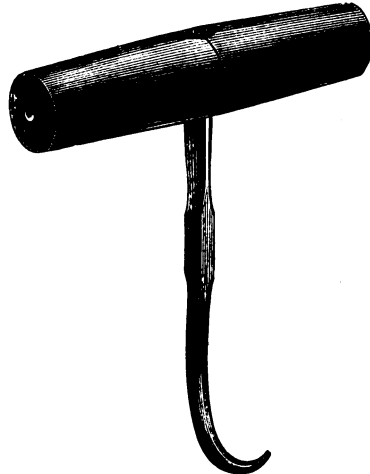
Sizes, $\frac{5}{8}$, $1\frac{1}{8}$, $\frac{3}{4}$, $1\frac{3}{8}$, $\frac{7}{8}$, $1\frac{5}{8}$, 1, $1\frac{1}{4}$, $1\frac{3}{4}$, $1\frac{5}{8}$, $1\frac{3}{4}$, $1\frac{3}{8}$, $1\frac{1}{2}$ inch hole. Price, 25 cents per pound.

Galvanized, 4 cents per pound extra.

Cotton, Box, and Hay Hooks.



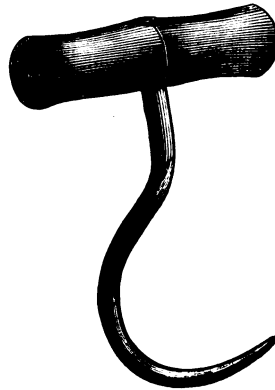
N. O. Cotton Hook.



Red River Hook.



Box or Cartmen's Hook.

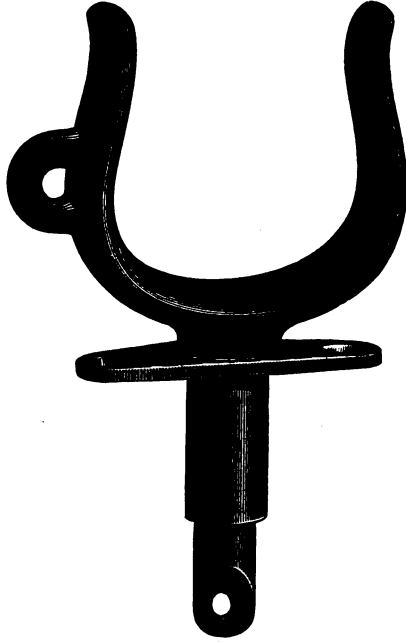


California Hay Hook.

		Per doz.
No. 1.	Black Handle, 6 inch Blade	\$3.33
No. 2.	Black Handle, 8 inch Blade	4.00
No. 3.	Red River, Straight, Light Handle, to float	4.20
No. 4.	Box or Cartmen's, Varnished Handles, 6 in. Blade	4.20
No. 5.	Box or Cartmen's, Varnished Handles, 8 in. Blade	5.00
No. 6.	Hudson River Hay Hook, 5½ in. Blade	4.20
No. 7.	California Hay Hook, 6 in. Blade	5.00
No. 8.	Extra Long Stevedore's Hook, 12 in. Blade	10.00
No. 9.	Boston, 6 in. Blade . . . Black, \$3.00; Galvanized, . . .	4.00
No. 10.	Boston, 8 in. Blade . . . Black, 4.00; Galvanized, . . .	5.00

All first quality stock, with Diamond Washers.

Common Rowlocks.



No. 1.

Price, per pair.

Width of opening, $2\frac{1}{4}$ inches.

Length of oar, from 8 to 10 feet, light boat 50 cents.

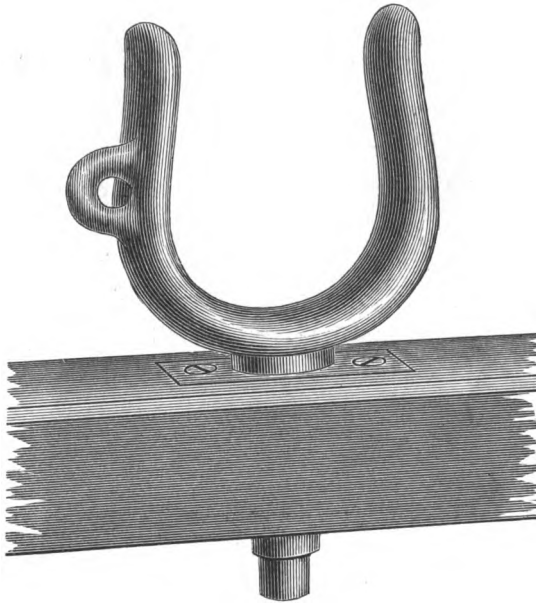
No. 2.

Width of opening, $2\frac{1}{2}$ inches.

Length of oar, from 8 to 10 feet, heavy boat 55 cents.

This Rowlock has the same advantage in form as the *Spring* Rowlock. Sockets are galvanized iron.

Seine Boat Rowlocks.



No. 3.

Price, per pair.

Width of opening, $2\frac{3}{4}$ inches.

Length of oar, from 10 to 14 feet, heavy boat \$1.00

No. 4.

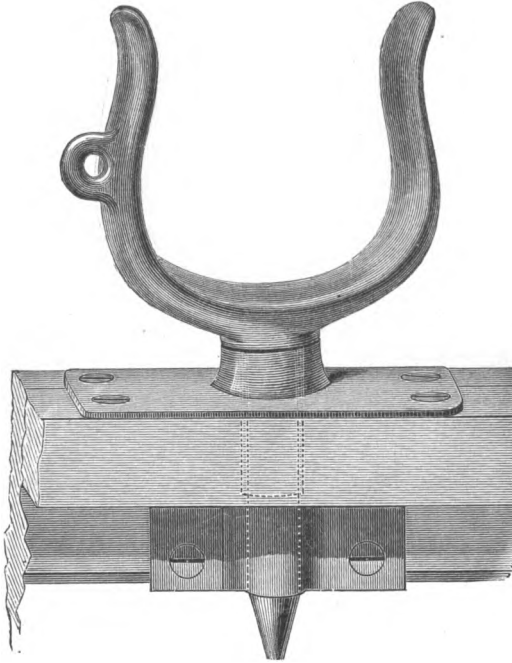
Width of opening, 3 inches.

Length of oar, from 14 to 18 feet 1.20

The lugs of the *Seine Boat* Rowlocks are turned, so as to be noiseless in rowing.

Swivel Rowlocks.

Self-Fastening and Self-Adjusting. Norcross Patent.



Wood-mounted, Galvanized Iron.

- | | Per pair. |
|---|--------------|
| No. 1. Width of opening 2 inches, for oar 8 to 10 feet, | price \$1.25 |
| No. 2. Width of opening $2\frac{1}{4}$ inches, for oar 10 to 12 feet, | price 1.50 |
| No. 3. Width of opening $2\frac{1}{2}$ inches, for oar 12 to 14 feet, | price 1.75 |

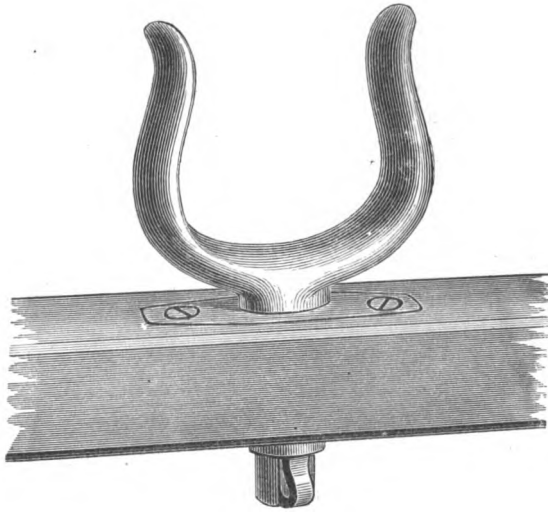
Wood-mounted, Finished Composition.

- | | Per pair. |
|---|--------------|
| No. 1. Width of opening 2 inches, for oar 8 to 10 feet, | price \$2.50 |
| No. 2. Width of opening $2\frac{1}{4}$ inches, for oar 10 to 12 feet, | price 3.00 |
| No. 3. Width of opening $2\frac{1}{2}$ inches, for oar 12 to 14 feet, | price 3.50 |

This Patent Rowlock is the only self-adjusting one ever made, AND WILL ALWAYS BE FOUND IN POSITION TO RECEIVE THE OAR, and cannot in any situation detach itself from its socket, but is instantly detachable and put into place when required.

Spring Rowlocks.

Norcross Patent.



Malleable Iron Galvanized.

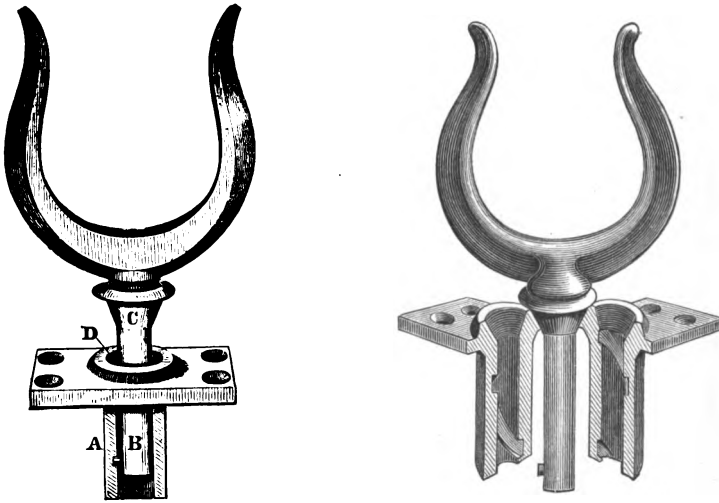
Width of opening, $2\frac{1}{4}$ inches.

Length of oar from 8 to 10 feet, \$1.00 per pair.

Finished composition 2.00 per pair.

This rowlock has superior advantages in that its shape is such that the oar cannot rise, or roll in the hands of the rower, and prevents blistering. The spring prevents its losing out of socket. It has a broad surface on the horn, and does not wear the oar.

BUSH'S Patent Self-Fastening Rowlocks.

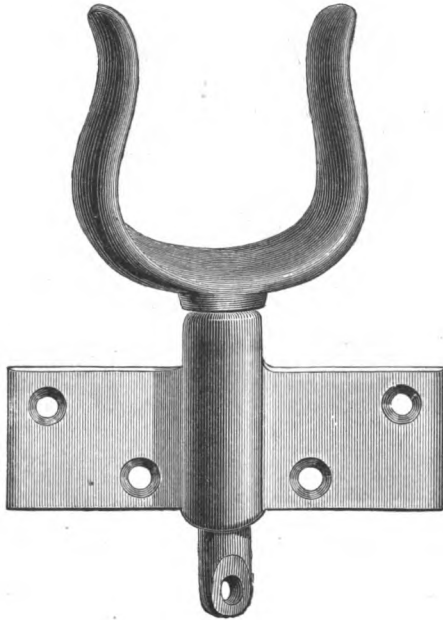


A is a brass socket, the bore of which is rifled with a spiral groove, through which moves the pin attached to shaft B. Thus the pin follows the groove, making one revolution of the Rowlock to carry it through the socket. To remove it the pin must again enter the groove and receive a reversed revolution. C is a bevel, with flange, fitted to the corresponding bevel D. This novelty adds strength to the Rowlock, and at the same time makes it impossible for the shaft to wear loose.

It is easily adjusted and removed. It fastens itself securely when placed in the socket. It is so constructed that it cannot wear loose, the socket being beveled to make a perfect fit.

Size.	Galvanized Iron, With Brass Socket. Price per pair.	Polished Brass. Price per pair.	Plain Brass. Price per pair.	Size Between Horns.
No. 1.	\$1.50	\$4.00	\$2.75	2 inches.
No. 2.	1.75	4.75	3.50	2½ inches.
No. 3.	2.00	5.25	4.00	2¾ inches.
No. 4.	2.25	5.75	4.50	2¾ inches.

Side Plate Rowlock, IMPROVED.



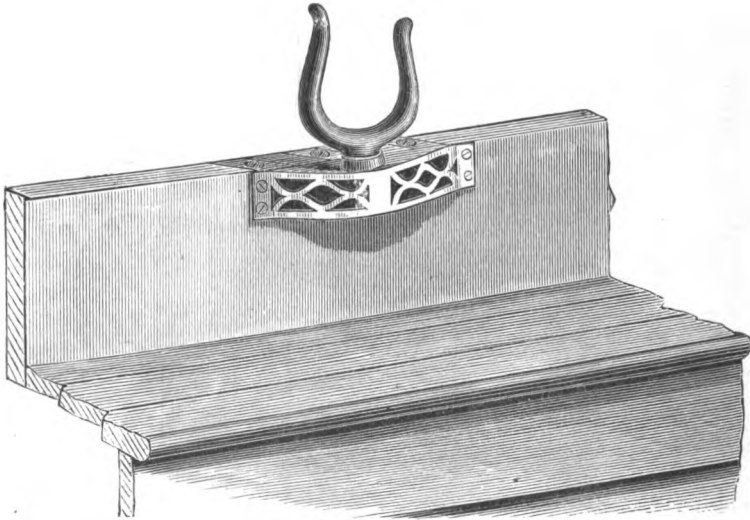
Size.	Size between Horns.	Galvanized Iron.	Plain Brass.	Polished Brass.	EXTRA PLATES.	
					Iron.	Brass.
No. 0 .	1 $\frac{1}{4}$ inch.	\$0.50	\$1.00	\$1.75	\$0.15	\$0.50 per pair.
No. 1 .	1 $\frac{3}{4}$ inch.	.70	1.25	2.00	.20	.55 per pair.
No. 2 .	2 inch.	.90	1.50	2.25	.25	.60 per pair.
No. 3 .	2 $\frac{1}{4}$ inch.	1.00	1.75	2.75	.30	.75 per pair.
No. 4 .	2 $\frac{3}{4}$ inch.	1.25	2.00	3.00	.35	.90 per pair.

This Rowlock is easily attached to any boat, as it is made to screw on the inside or outside the gunwale of same. The horns of this Rowlock are of such shape as to save the wear of the oar and prevent blistering the hands, there being three curves, instead of one in common use.

Yacht and Fishing Boat Rowlock.

PATENT.

To detach, turn long horn aft, and draw out.



CUT SHOWING ROWLOCK IN POSITION AT THE TOP OF COMBING, OUTSIDE OF STANDING-ROOM.

IRON.

- No. 1. Width of opening $2\frac{1}{4}$ in., for oar 8 to 12 feet, price \$1.75
- No. 2. Width of opening $2\frac{1}{2}$ in., for oar 10 to 14 feet, price 2.00
- No. 3. Width of opening $2\frac{3}{4}$ in., for oar 12 to 16 feet, price 2.25

BRASS.

- No. 1. Width of opening $2\frac{1}{4}$ in., for oar 8 to 12 feet, price 4.00
- No. 2. Width of opening $2\frac{1}{2}$ in., for oar 10 to 14 feet, price 5.00
- No. 3. Width of opening $2\frac{3}{4}$ in., for oar 12 to 16 feet, price 6.00

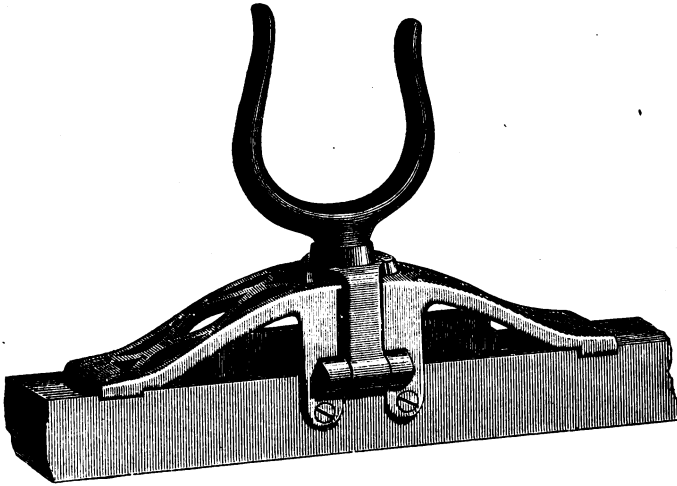
WITHOUT SPRING.

- | | GALVANIZED IRON | BRASS. |
|---|------------------|------------------|
| No. 3. Width of opening $2\frac{1}{4}$ in., | \$1.50 per pair. | \$3.50 per pair. |
| No. 4. Width of opening $2\frac{1}{2}$ in., | 1.75 per pair. | 4.00 per pair. |
| No. 5. Width of opening $2\frac{3}{4}$ in., | 2.00 per pair. | 5.50 per pair. |

Navy, or Revenue Rowlocks.

PATENT.

To detach, turn long horn aft, draw up, and turn out.



CUT SHOWING ROWLOCK IN POSITION ABOVE GUNWALE.

		IRON.	BRASS.
No. 1.	Width of opening $1\frac{1}{2}$ in., for oar 8 to 10 feet,	\$2.00	\$4.00
No. 2.	Width of opening 2 in., for oar 10 to 12 feet,	2.50	5.00
No. 3.	Width of opening $2\frac{1}{4}$ in., for oar 12 to 14 feet,	3.00	6.00
No. 4.	Width of opening $2\frac{1}{2}$ in., for oar 14 to 16 feet,	3.50	7.00
No. 5.	Width of opening $2\frac{3}{4}$ in., for oar 16 to 18 feet,	4.00	8.00

Is instantly changed from its position to a hanging one, or can be detached from the boat.

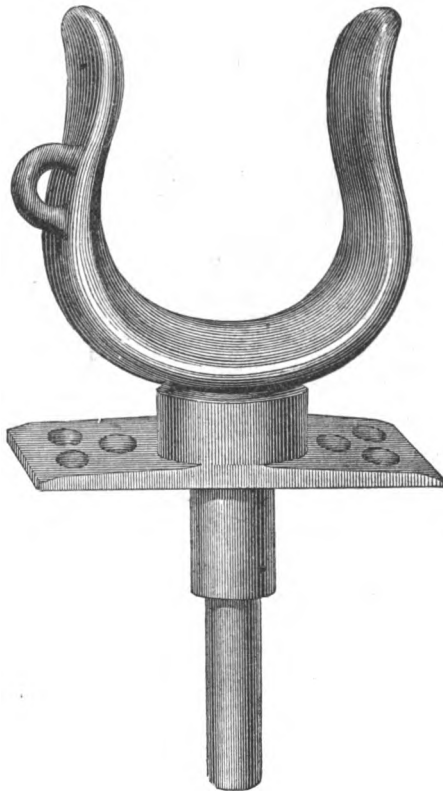
This Rowlock possesses, in all points, all the advantages possibly to be had, both for safety and use. Automatic in its motion, perfectly adapting itself to the motion of the oar, and always in position to receive it, *i. e.*, "fore and aft" the boat.

WITHOUT HINGE OR SPRING.

	IRON.	BRASS.
No. 1.	Width of opening $1\frac{1}{4}$ in., \$1.00 per pair.	\$3.50 per pair.
No. 2.	Width of opening 2 in., 1.25 per pair.	4.50 per pair.
No. 3.	Width of opening $2\frac{1}{4}$ in., 1.50 per pair.	5.50 per pair.
No. 4.	Width of opening $2\frac{1}{2}$ in., 1.75 per pair.	6.50 per pair.
No. 5.	Width of opening $2\frac{3}{4}$ in., 2.00 per pair.	7.50 per pair.

New Patent Swivel Rowlocks.

Wrought Iron Shank.



Per pair.

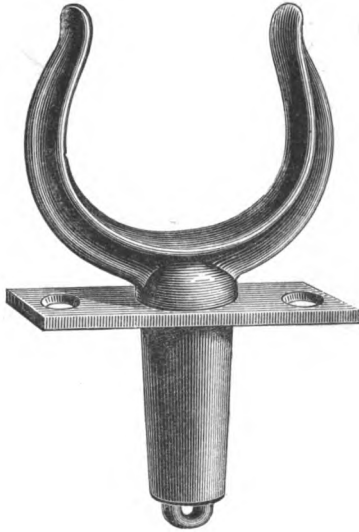
- No. 1. Width of opening 2 inches, for oar 8 to 10 feet, price \$0.80
- No. 2. Width of opening $2\frac{1}{4}$ inches, for oar 10 to 12 feet, price .90
- No. 3. Width of opening $2\frac{1}{2}$ inches, for oar 11 to 14 feet, price 1.10

Finished Composition.

Per pair.

- No. 1. Width of opening 2 inches, for oar 8 to 10 feet, price \$2.00
- No. 2. Width of opening $2\frac{1}{4}$ inches, for oar 10 to 12 feet, price 2.50
- No. 3. Width of opening $2\frac{1}{2}$ inches, for oar 12 to 14 feet, price 3.00

Socket Rowlocks.



Galvanized Iron, and Polished and Plain Brass.

Number,	0	1	2	3	4
Width of opening, $1\frac{1}{2}$		2	$2\frac{1}{4}$	$2\frac{1}{2}$	3 inches.
Galvanized,	\$0.55	.70	.90	1.20	1.40 per pair.
Polished Brass,	\$1.75	2.00	2.25	2.75	3.25 per pair.
Plain Brass,	\$1.00	1.25	1.50	2.00	2.50 per pair.

Extra Sockets.

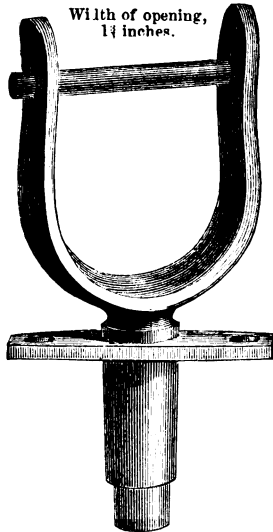
Number,	0	1	2	3	4
Galvanized,	15	20	25	30	40 cents per pair.
Polished Brass,	30	35	45	60	75 cents per pair.

CAST IRON ROWLOCKS.

Number	0	1	2	3	4
Black,	15	25	35	50	70 cents per pair.
Galvanized,	20	35	45	60	80 cents per pair.

River, Canal, and Dory Rowlocks.

Malleable Iron. Galvanized.



Price per pair 70 cents.

These Rowlocks are hung to the oars, which allows them to be left in place on the boat. They are used in narrow waters, among oyster stakes, and on gunning boats.

Whale Boat Rowlocks.

Galvanized.

Width between Horns, $3\frac{1}{4}$ inches.

With Brass Sockets, 3 inch oar, \$1.50 per pair.

Without Sockets, 3 inch oar, 1.10 per pair.

Without Sockets, not galvanized, 1.00 per pair.

Patent Hollow Thole Pins.



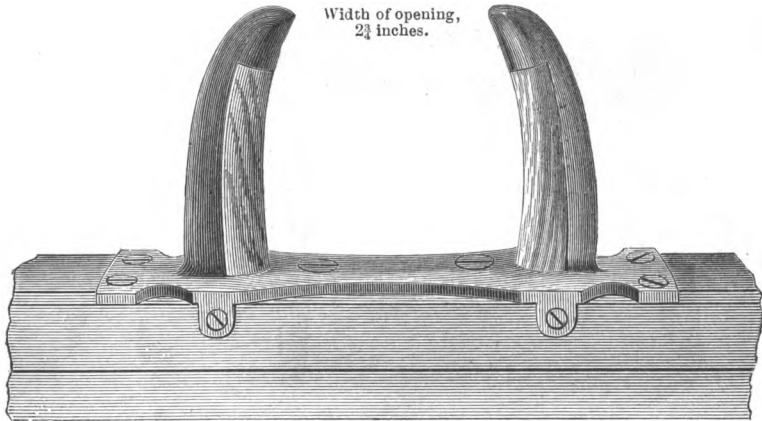
No. 1. Size of lug, $\frac{5}{8}$ inch, 35 cents per pair.

No. 2. Size of lug, $\frac{3}{4}$ inch, 40 cents per pair.

No. 3. Size of lug, $\frac{7}{8}$ inch, 45 cents per pair.

Gunwale Rowlocks.

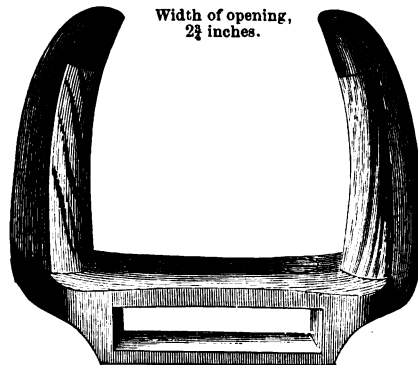
Wood-Lined. Norcross Patent.



For the Gunwale, Heavy Galvanized Iron, \$1.50 per pair.
 For the Gunwale, Light Galvanized Iron, 1.25 per pair.
 For the Gunwale, Heavy Finished Composition, 3.50 per pair.
 For the Gunwale, Light Finished Composition, 3.00 per pair.

Outrigger Rowlocks.

Wood-Lined. Norcross Patent.

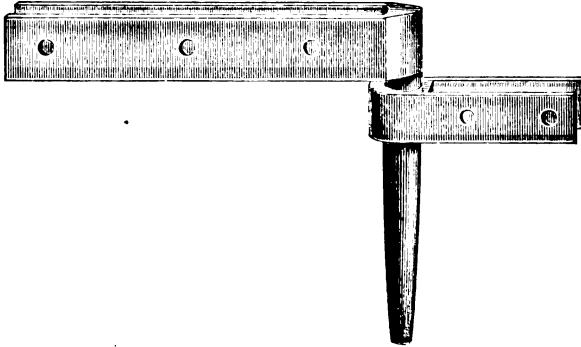


For the Outrigger, Light Galvanized Iron, \$1.25 per pair.
 For the Outrigger, Heavy Galvanized Iron, \$1.50 per pair.

The wood lining prevents wear upon the oar, and insures a smooth stroke.
 Made and finished of best stock and in the most thorough manner.

Galvanized Rudder Braces.

With Straps.



Numbers,	1	2	3	4	5	6	7	8
Width between straps $\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$ inch.	
Price per doz. sets,	\$5.00	5.50	6.00	8.50	12.00	17.00	$\frac{1}{2}$ 20.00	28.00

Ring Bolts.

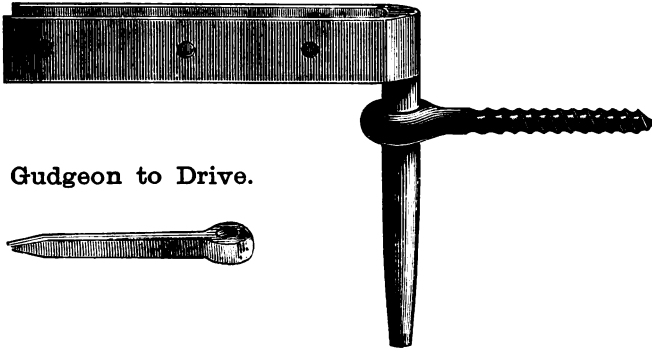
Wrought Iron.



Size, $\frac{1}{4}$ in., galvanized,	\$1.30 per doz. ; plain,	\$1.20 per doz.
Size, $\frac{1}{8}$ in., galvanized,	2.20 per doz. ; plain,	2.00 per doz.
Size, $\frac{3}{8}$ in., galvanized,	2.40 per doz. ; plain,	2.20 per doz.
Size, $\frac{1}{2}$ in., galvanized,	3.80 per doz. ; plain,	3.40 per doz.
Size, $\frac{3}{4}$ in., galvanized,	4.60 per doz. ; plain,	4.00 per doz.
Size, $\frac{7}{8}$ in., galvanized,	7.00 per doz. ; plain,	6.00 per doz.
Size, $\frac{1}{2}$ in., galvanized,	10.40 per doz. ; plain,	8.90 per doz.
Size, $\frac{7}{8}$ in., galvanized,	16.50 per doz. ; plain,	14.00 per doz.
Size, 1 in., galvanized,	23.00 per doz. ; plain,	19.50 per doz.

Galvanized Rudder Braces.

With Screw Gudgeon.

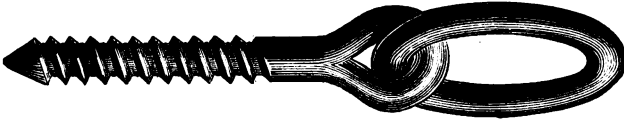


Gudgeon to Drive.

Numbers,	1	2	3	4	5	6
Width between straps,	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$ inch.
Price per dozen sets,	\$3.25	3.80	4.50	5.00	5.50	6.50

Ship Ring Bolts.

Wrought Iron. With Thread.

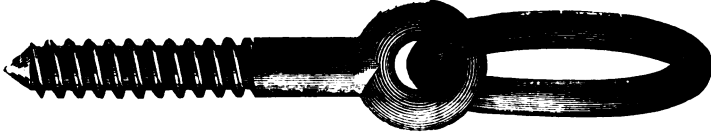


GALVANIZED.

Diameter.	Ring.	Length Screw.	Per Doz.
$\frac{3}{8}$	$2 \times \frac{3}{8}$	$4\frac{1}{2}$ inch.	\$3.00
$\frac{7}{16}$	$2\frac{1}{4} \times \frac{7}{16}$	$4\frac{1}{2}$ inch.	3.50
$\frac{1}{2}$	$2\frac{1}{2} \times \frac{1}{2}$	6 inch.	4.00
$\frac{5}{8}$	$2\frac{3}{4} \times \frac{5}{8}$	6 inch.	5.50
$\frac{3}{4}$	$3 \times \frac{3}{4}$	7 inch.	10.00
$\frac{7}{8}$	$3\frac{1}{4} \times \frac{7}{8}$	7 inch.	15.00

Screw Ring Bolts.

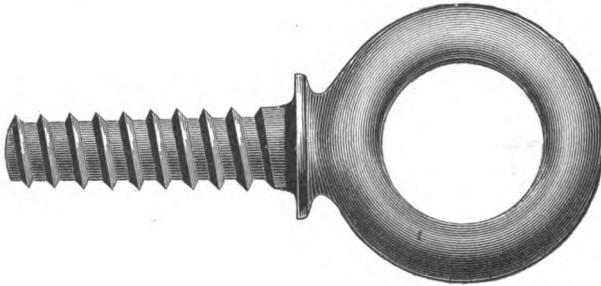
Wrought Iron.



Size, $\frac{1}{4}$ in.,	galvanized, \$1.60 per doz. ;	plain, \$1.50 per doz.
Size, $\frac{5}{16}$ in.,	galvanized, 2.40 per doz. ;	plain, 2.20 per doz.
Size, $\frac{3}{8}$ in.,	galvanized, 2.80 per doz. ;	plain, 2.40 per doz.
Size, $\frac{7}{8}$ in.,	galvanized, 3.20 per doz. ;	plain, 3.00 per doz.
Size, $\frac{1}{2}$ in.,	galvanized, 3.60 per doz. ;	plain, 3.30 per doz.
Size, $\frac{5}{8}$ in.,	galvanized, 4.80 per doz. ;	plain, 4.25 per doz.
Size, $\frac{3}{4}$ in.,	galvanized, 9.60 per doz. ;	plain, 8.85 per doz.
Size, $\frac{7}{8}$ in.,	galvanized, 13.50 per doz. ;	plain, 12.00 per doz.
Size, 1 in.,	galvanized, 19.00 per doz. ;	plain, 17.00 per doz.

Screw Eye Bolts.

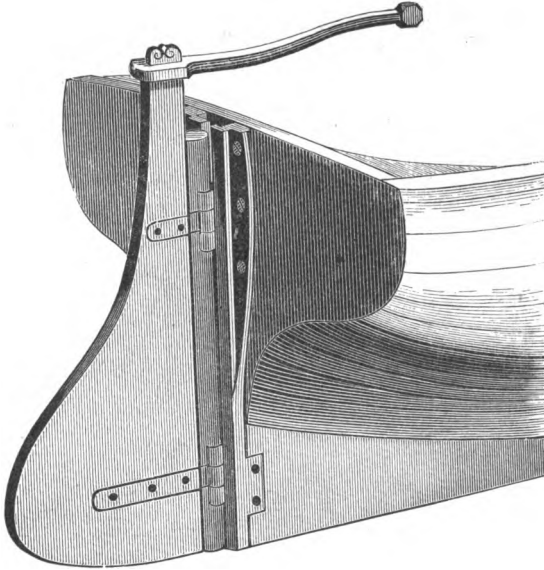
Malleable Iron. Galvanized.



Size Shank.	Length.	Eye, diam.	Galv.	Brass.
$\frac{3}{8}$ in.	2 in.	$\frac{1}{2}$ in.	Price, \$0.60	\$1.00 per doz.
$\frac{1}{2}$ in.	2 in.	$\frac{1}{2}$ in.	Price, .75	1.25 per doz.
$\frac{5}{8}$ in.	$1\frac{1}{4}$ in.	$1\frac{1}{8}$ in.	Price, .90	1.50 per doz.
$\frac{3}{4}$ in.	2 in.	$1\frac{1}{8}$ in.	Price, 1.25	2.00 per doz.
$\frac{7}{8}$ in.	$1\frac{3}{4}$ in.	1 in.	Price, 1.50	2.50 per doz.

Rudder Hangings.

Galvanized Iron.



- No. 1. Price per set, length 23 inches \$1.50
 No. 2. Price per set, length 27 inches 2.00

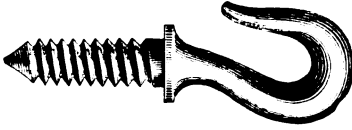
Composition unfinished metal double the prices of galvanized iron.

This Rudder Attachment supersedes entirely the old style of Rudder Braces, and can be easily, and without much extra expense attached to the rudder. It can be shipped and unshipped the same in any weather whatever, without liability to danger or discomfort.

The braces on the rudder hinge on a T shaped piece of galvanized iron, which is entered in shipping the rudder at the top of the stern.

In ordering, give exact height from the keel to top of stern.

Deck Hooks and Rudder Gudgeons.



Deck Hook.



Rudder Gudgeon.

Wrought Iron. Galvanized.

Galvanized Iron Deck Hooks, stem 2 inches long, with thread.

Size of Iron, $\frac{1}{8}$ inch. Price, \$3.00 per dozen.

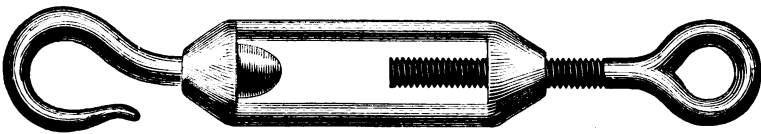
Galvanized Iron Rudder Gudgeons, stems $2\frac{1}{2}$ inches long, with thread.

Size of Iron, $\frac{5}{8}$ inch. Price, \$2.25 per dozen.

Galvanized Malleable Iron Rudder Gudgeon.

$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	diameter, 2 inches long.
\$1.50	2.00	2.25	per dozen.

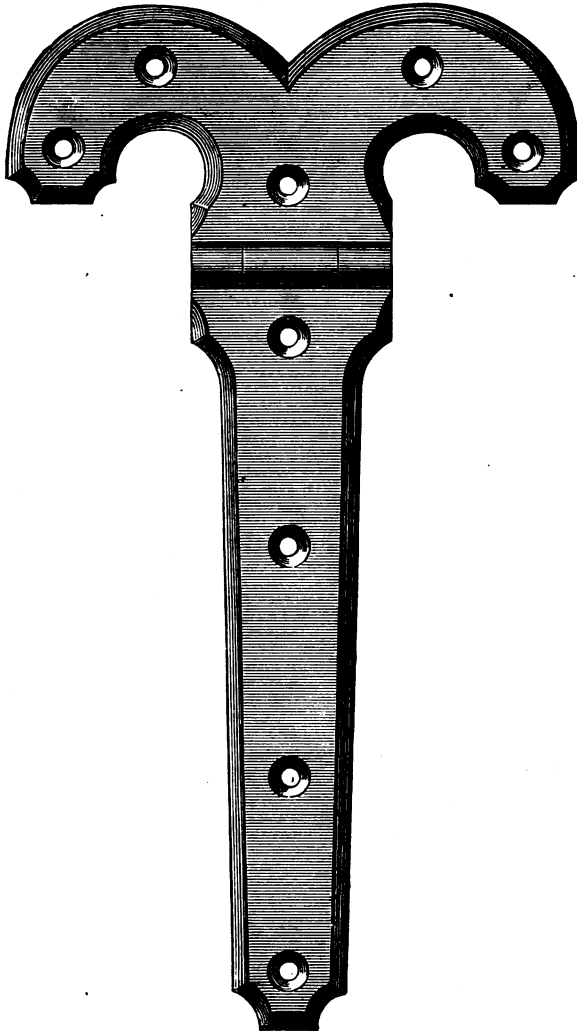
Hook and Eye Turn Buckles.



Size, $\frac{1}{8}$ inch	. .	Galvanized, \$1.50 each ; Plain, \$1.00 each.
Size, $\frac{3}{8}$ inch	. .	Galvanized, 1.75 each ; Plain, 1.25 each.
Size, $\frac{1}{2}$ inch	. .	Galvanized, 2.00 each ; Plain, 1.50 each.
Size, $\frac{3}{4}$ inch	. .	Galvanized, 2.25 each ; Plain, 1.75 each.
Size, $\frac{5}{8}$ inch	. .	Galvanized, 3.00 each ; Plain, 2.00 each.
Size, $\frac{3}{4}$ inch	. .	Galvanized, 4.00 each ; Plain, 3.00 each.
Size, $\frac{7}{8}$ inch	. .	Galvanized, 5.00 each ; Plain, 4.00 each.
Size, 1 inch	. .	Galvanized, 6.00 each ; Plain, 5.00 each.

Port Hinges.

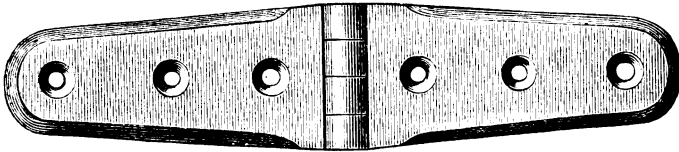
Malleable Iron. Galvanized. Brass Rivets.



Whole length,	$4\frac{1}{2}$ in.	$6\frac{1}{4}$ in.	$8\frac{1}{2}$ in.
Price,	30 cts.	40 cts.	60 cts. per pair.

Strap Hinges.

Heavy Galvanized Malleable Iron. Brass Rivets.



Length, when open, $6\frac{1}{2}$ inches. Price 30 cents per pair.

Length, when open, $7\frac{1}{2}$ inches. Price 40 cents per pair.



Coil Chain.

SELF-COLORED OR BLACK.

Sizes,	1	$\frac{7}{8}$	$\frac{3}{4}$	$1\frac{1}{8}$	$\frac{5}{8}$	$1\frac{3}{8}$ inch.
Price per lb.	$6\frac{1}{2}$	7	$7\frac{1}{4}$	$7\frac{1}{2}$	8	$8\frac{1}{2}$ cts.

Sizes,	$\frac{1}{2}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{5}{16}$	$\frac{1}{4}$	$1\frac{3}{8}$ inch.
Price per lb.	9	$9\frac{1}{2}$	10	11	$12\frac{1}{2}$	22 cts.

Made from the Best Quality Iron.

Prices for Galvanized Coil Chain furnished on application.



Boat Rivets.

Flat and Oval Heads. Galvanized.



Size, $\frac{3}{8}$ in. Plain, per lb., 13 cts. ; Galvanized, per lb., 16 cts.
 Size, $\frac{1}{2}$ in. Plain, per lb., 12 cts. ; Galvanized, per lb., 15 cts.
 Size, $\frac{5}{8}$ in. Plain, per lb., 11 cts. ; Galvanized, per lb., 14 cts.
 Size, $\frac{3}{4}$ in. Plain, per lb., 10 cts. ; Galvanized, per lb., 13 cts.

Lengths from $2\frac{1}{2}$ to 10 inches. We can furnish burrs and rivets of every style.

Cut and Sheathing Nails.

Galvanized.

CUT NAIL.



SHEATHING NAIL.



Common, Fence, Clinch, Slating, Finishing, and Sheathing Nails, and Cut and Ship Spikes, at lowest market rates.

Prices upon application.

Ship and Boat Spikes.



Iron and Composition.

Prices given on application.

Boat Nails.



Warranted to Clinch. Blunt Point.

Lengths.	Price, Galvzd.	Price, Black.	Lengths.	Price, Galvzd.	Price, Black.
$\frac{3}{4}$	\$0.13 $\frac{1}{2}$	\$0.11	$2\frac{1}{2}$	\$0.10 $\frac{1}{2}$	\$0.08 $\frac{1}{2}$
$\frac{7}{8}$	.13 $\frac{1}{2}$	.11	$2\frac{3}{4}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
1	.12 $\frac{3}{4}$	.10 $\frac{1}{2}$	3	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
$1\frac{1}{8}$	.12 $\frac{3}{4}$	.10 $\frac{1}{2}$	$3\frac{1}{4}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
$1\frac{1}{2}$	.12 $\frac{3}{4}$	.10 $\frac{1}{2}$	$3\frac{1}{2}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
$1\frac{3}{4}$	.12 $\frac{3}{4}$	.10 $\frac{1}{2}$	$3\frac{3}{4}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
$1\frac{7}{8}$	.12 $\frac{1}{2}$	.10	4	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
2	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$	$4\frac{1}{4}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$
$2\frac{1}{4}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$	$4\frac{1}{2}$	.10 $\frac{1}{2}$	.08 $\frac{1}{2}$



Chisel Point.

Lengths.	Price, Galvzd.	Price, Black.	Lengths.	Price, Galvzd.	Price, Black.
$\frac{3}{4}$	\$0.19	\$0.16 $\frac{1}{2}$	$2\frac{1}{2}$	\$0.15	\$0.13
$\frac{7}{8}$	.18	.16	$2\frac{3}{4}$	.15	.13
1	.18	.16	3	.15	.13
$1\frac{1}{8}$	.17	.15	$3\frac{1}{4}$	.13	.11 $\frac{1}{2}$
$1\frac{1}{2}$	.17	.15	$3\frac{1}{2}$	.13	.11 $\frac{1}{2}$
$1\frac{3}{4}$	.16	.14	$3\frac{3}{4}$	.13	.11 $\frac{1}{2}$
$1\frac{7}{8}$	.16	.14	4	.13	.11 $\frac{1}{2}$
2	.15	.13	$4\frac{1}{4}$	.13	.11 $\frac{1}{2}$
$2\frac{1}{4}$	.15	.13	$4\frac{1}{2}$	.13	.10 $\frac{1}{2}$



Countersunk Head.

Lengths.	Price, Galvzd.	Price, Black.	Lengths.	Price, Galvzd.	Price, Black.
$\frac{3}{4}$	\$0.19	\$0.16 $\frac{1}{2}$	$2\frac{1}{2}$	\$0.15	\$0.13
$\frac{7}{8}$	.18	.16	$2\frac{3}{4}$	.15	.13
1	.18	.16	3	.15	.13
$1\frac{1}{8}$	.17	.15	$3\frac{1}{4}$	.13	.11 $\frac{1}{2}$
$1\frac{1}{2}$	.17	.15	$3\frac{1}{2}$	.13	.11 $\frac{1}{2}$
$1\frac{3}{4}$	.16	.14	$3\frac{3}{4}$	.13	.11 $\frac{1}{2}$
$1\frac{7}{8}$	.16	.14	4	.13	.11 $\frac{1}{2}$
2	.15	.13	$4\frac{1}{4}$	.13	.11 $\frac{1}{2}$
$2\frac{1}{4}$	.15	.13	$4\frac{1}{2}$	.13	.10 $\frac{1}{2}$

Packed in boxes of 25 or 50 pounds, and kegs of 100 pounds.
Galvanized Sheathing, and common Cut Nails furnished to order.

Galvanized Iron Tacks.

SWEDES IRON.



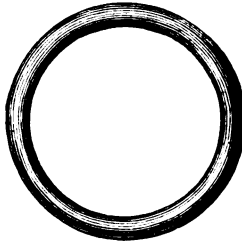
For Decks of Steamers, etc.

8 ounces,	$\frac{1}{2}$ inch long,	25 cents per pound.
10 ounces,	$\frac{3}{8}$ inch long,	24 cents per pound.
12 ounces,	$\frac{1}{2}$ inch long,	22 cents per pound.
14 ounces,	$\frac{5}{8}$ inch long,	21 cents per pound.
16 ounces,	$\frac{3}{4}$ inch long,	20 cents per pound.
18 ounces,	$\frac{7}{8}$ inch long,	20 cents per pound.
20 ounces,	$\frac{1}{2}$ inch long,	20 cents per pound.
22 ounces,	$\frac{1}{2}$ inch long,	20 cents per pound.
24 ounces,	1 inch long,	20 cents per pound.

Packed in boxes of 25 pounds. Additional pound packages in paper, one cent advance per pound.

COPPER TACKS at market rates.

Mast Hoops or Rings.

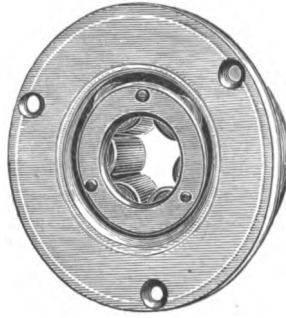


Galvanized Wrought Iron.

Diam. Inside.	Price per Doz.	Diam. Inside.	Price per Doz.	Diam. Inside.	Price per Doz.
3	\$0.60	5 $\frac{1}{2}$	\$1.20	8	\$1.65
3 $\frac{1}{2}$	.70	6	1.30	8 $\frac{1}{2}$	1.75
4	.85	6 $\frac{1}{2}$	1.35	9	1.85
4 $\frac{1}{2}$	1.00	7	1.40	9 $\frac{1}{2}$	2.00
5	1.10	7 $\frac{1}{2}$	1.50	10	2.20

Composition Bushings, Flange.

Patent Compressed Rollers.



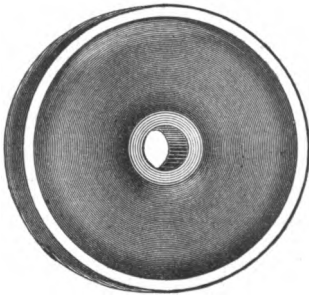
SIZE.		Composition Roller. Composition Shell. Turned.	SIZE.		Composition Roller. Composition Shell. Turned.
Hole or Pin.	Thickness or Depth.		Hole or Pin.	Thickness or Depth.	
$\frac{3}{8}$	$\frac{1}{8}$	\$0.26		$1\frac{1}{8}$	\$1.75
	$\frac{1}{4}$	.28		$1\frac{1}{4}$	1.85
$\frac{1}{2}$	$\frac{3}{8}$	.30		$1\frac{3}{4}$	2.05
	$\frac{1}{2}$	.32		2	2.25
	$\frac{5}{8}$	.34	$1\frac{1}{8}$	$1\frac{1}{8}$	2.10
	1	.36		$1\frac{1}{4}$	2.22
$\frac{5}{8}$	$\frac{3}{4}$	.40		$1\frac{3}{4}$	2.32
	$1\frac{1}{8}$	.46		$1\frac{7}{8}$	2.70
	$1\frac{1}{4}$	.50		2	3.20
	$1\frac{3}{8}$	.56	$1\frac{1}{4}$	$1\frac{3}{8}$	3.30
	$1\frac{1}{2}$	.62		$1\frac{1}{2}$	3.52
$\frac{3}{4}$	$1\frac{3}{4}$	.64		$1\frac{3}{4}$	3.75
	2	.68		2	4.00
	$2\frac{1}{8}$	.75		$2\frac{1}{4}$	4.20
	$2\frac{1}{4}$	.82		$2\frac{3}{4}$	—
	$2\frac{1}{2}$	.90	$1\frac{3}{8}$	$1\frac{3}{8}$	4.07
	$2\frac{3}{4}$	.96		$1\frac{1}{2}$	4.50
$\frac{7}{8}$	3	.99		2	5.00
	$3\frac{1}{8}$	1.02		$2\frac{1}{4}$	5.40
	$3\frac{1}{4}$	1.09		$2\frac{3}{4}$	5.80
	$3\frac{3}{8}$	1.15	$1\frac{1}{2}$	$1\frac{1}{2}$	5.40
	$3\frac{1}{2}$	1.30		2	6.00
	$3\frac{3}{4}$	1.38		$2\frac{1}{4}$	6.50
	$4\frac{1}{8}$	1.52		$2\frac{3}{4}$	7.00
1	$4\frac{1}{4}$	1.40		$2\frac{7}{8}$	7.50
	$4\frac{3}{4}$	1.55			

Steel Roller Bushings, Flange.

Iron Shell.

Hole.	Thickness.	Japanned.	Turned.	Hole.	Thickness.	Japanned.	Turned.
$\frac{5}{8}$	$\frac{7}{8}$	\$0.45	\$0.50	$1\frac{1}{8}$	$1\frac{1}{2}$	\$1.20	\$1.32
$\frac{5}{8}$	1	.47	.52	$1\frac{1}{8}$	$1\frac{3}{8}$	1.30	1.43
$\frac{5}{8}$	$1\frac{1}{8}$	.49	.54	$1\frac{1}{8}$	$1\frac{1}{2}$	1.40	1.54
$\frac{5}{8}$	$1\frac{1}{2}$	.55	.61	$1\frac{1}{8}$	$1\frac{3}{4}$	1.60	1.76
$\frac{3}{4}$	1	.55	.61	$1\frac{1}{8}$	2	1.80	1.98
$\frac{3}{4}$	$1\frac{1}{8}$	.62	.68	$1\frac{1}{2}$	$1\frac{3}{8}$	1.60	1.76
$\frac{3}{4}$	$1\frac{1}{2}$	.70	.77	$1\frac{1}{2}$	$1\frac{1}{2}$	1.80	1.98
$\frac{3}{4}$	$1\frac{3}{8}$	.75	.83	$1\frac{1}{2}$	$1\frac{3}{4}$	2.00	2.20
$\frac{3}{4}$	$1\frac{1}{2}$	.80	.88	$1\frac{1}{2}$	2	2.20	2.42
$\frac{7}{8}$	$1\frac{1}{8}$	.80	.88	$1\frac{1}{2}$	$2\frac{1}{2}$	2.50	2.75
$\frac{7}{8}$	$1\frac{1}{2}$	.85	.94	$1\frac{1}{2}$	$2\frac{1}{2}$	2.70	2.97
$\frac{7}{8}$	$1\frac{3}{8}$	.90	.99	$1\frac{3}{8}$	$1\frac{1}{2}$	2.10	2.31
$\frac{7}{8}$	$1\frac{1}{2}$	.95	1.05	$1\frac{3}{8}$	$1\frac{3}{4}$	2.30	2.53
$\frac{7}{8}$	$1\frac{5}{8}$	1.00	1.10	$1\frac{3}{8}$	2	2.60	2.86
$\frac{7}{8}$	$1\frac{3}{4}$	1.05	1.16	$1\frac{3}{8}$	$2\frac{1}{2}$	2.90	3.19
1	$1\frac{1}{2}$	1.00	1.10	$1\frac{3}{8}$	$2\frac{1}{2}$	3.20	3.52
1	$1\frac{3}{8}$	1.05	1.16	$1\frac{1}{2}$	$1\frac{3}{4}$	2.80	3.08
1	$1\frac{1}{2}$	1.10	1.21	$1\frac{1}{2}$	2	3.20	3.52
1	$1\frac{5}{8}$	1.15	1.27	$1\frac{1}{2}$	$2\frac{1}{2}$	3.60	3.96
1	$1\frac{3}{4}$	1.20	1.32	$1\frac{1}{2}$	$2\frac{1}{2}$	4.00	4.40
1	2	1.30	1.43	$1\frac{1}{2}$	$2\frac{3}{4}$	4.30	4.73

Sheaves.



Solid.



Open.



Patent.

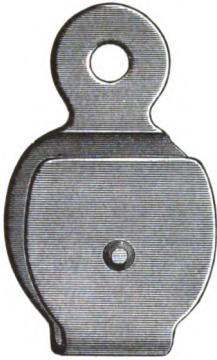
Galvanized Iron.

SOLID.			OPEN. MALLEABLE IRON.			PATENT. MALLEABLE IRON.		
Diam.	Score.	Per lb.	Diam.	Score.	Per lb.	Diam.	Score.	Each.
$\frac{0}{16}$	$\frac{1}{8}$	\$0.30	2	$\frac{1}{2}$	\$0.25	$2\frac{1}{2}$	$\frac{1}{2}$	\$0.15
$\frac{1}{8}$	$\frac{1}{4}$	.25	3	$\frac{1}{2}$	.25	$2\frac{1}{2}$	$\frac{2}{8}$	.20
$\frac{1}{4}$	$\frac{1}{4}$	.25	$2\frac{1}{2}$	$\frac{5}{8}$	.25	3	$\frac{5}{8}$	.25
1	$\frac{1}{2}$	.25	$3\frac{1}{4}$	$\frac{5}{8}$	.25	$3\frac{1}{2}$	$\frac{3}{4}$	.40
1	$\frac{5}{8}$	.25	$3\frac{3}{4}$	$\frac{3}{4}$	.25	4	$\frac{7}{8}$	.60
$1\frac{1}{8}$	$\frac{3}{8}$	.25	$4\frac{1}{2}$	$\frac{3}{4}$	.25	5	1	1.00
$1\frac{1}{4}$	$\frac{1}{2}$	.25	$5\frac{1}{2}$	1	.22	6	$1\frac{1}{8}$	1.25
$1\frac{3}{4}$	$\frac{1}{2}$	.16	$5\frac{1}{2}$	1	.22	7	$1\frac{1}{4}$	1.50
2	$\frac{7}{8}$	.16	7	$1\frac{1}{4}$	.20	8	$1\frac{1}{2}$	1.75
2	$\frac{7}{8}$	.16	$7\frac{3}{4}$	$1\frac{1}{4}$	.20			
$2\frac{1}{4}$	$\frac{1}{2}$	.16						
$2\frac{3}{4}$	$\frac{5}{8}$	.16						

Snatch and Clothes-Line Blocks.

Malleable Iron. Galvanized.

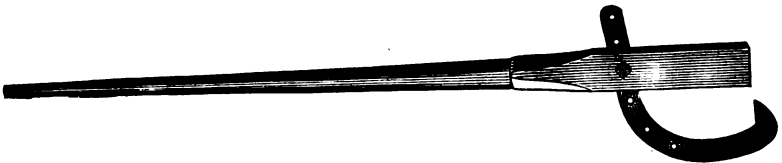
NORCROSS PATENT.



No. 56. For Clothes-line use, small size. Price, 16 cents each.

No. 57. Large size, same opening. Price, 20 cents each.

Cant Hooks.

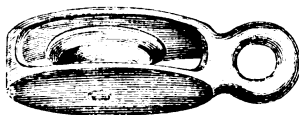


Selected Hickory Handles. Hooks steel points.

PRICE \$3.00 EACH.

Tackle Blocks.

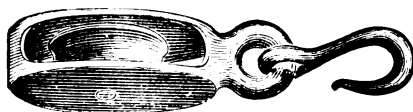
GALVANIZED MALLEABLE IRON.



Single Sheaves, Single Beckets.

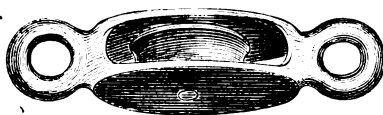
No. 0.	Diameter of rope, $\frac{1}{8}$ inch.	Price per dozen, \$0.75.
No. 1.	Diameter of rope, $\frac{1}{4}$ inch.	Price per dozen, 1.00.
No. 2.	Diameter of rope, $\frac{5}{16}$ inch.	Price per dozen, 1.75.
No. 3.	Diameter of rope, $\frac{3}{8}$ inch.	Price per dozen, 2.75.
No. 4.	Diameter of rope, $\frac{1}{2}$ inch.	Price per dozen, 4.00.

No. 4 can be furnished with Stationary Hook.



Single Sheaves, Wrought Iron Hooks.

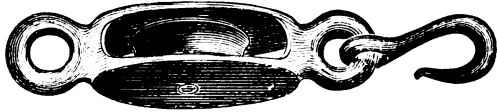
No. 1 $\frac{1}{2}$.	Diameter of rope, $\frac{1}{4}$ inch.	Price per dozen, \$2.50.
No. 2 $\frac{1}{2}$.	Diameter of rope, $\frac{5}{16}$ inch.	Price per dozen, 3.50.
No. 3 $\frac{1}{2}$.	Diameter of rope, $\frac{3}{8}$ inch.	Price per dozen, 4.50.
No. 4 $\frac{1}{2}$.	Diameter of rope, $\frac{1}{2}$ inch.	Price per dozen, 6.00.



Single Sheaves, Double Becket.

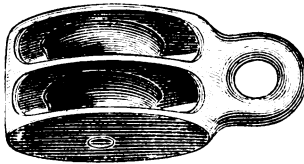
No. 6.	Diameter of rope, $\frac{1}{4}$ inch.	Price per dozen, \$1.00.
No. 7.	Diameter of rope, $\frac{5}{16}$ inch.	Price per dozen, 1.75.
No. 8.	Diameter of rope, $\frac{3}{8}$ inch.	Price per dozen, 2.75.
No. 9.	Diameter of rope, $\frac{1}{2}$ inch.	Price per dozen, 4.00.

Tackle Blocks.



Single Sheaves, Becket, Wrought Iron Hooks.

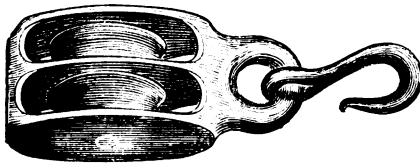
No. 6½.	Diameter of rope, $\frac{1}{4}$ inch.	Price per dozen, \$2.50.
No. 7½.	Diameter of rope, $\frac{5}{16}$ inch.	Price per dozen, 3.50.
No. 8½.	Diameter of rope, $\frac{3}{8}$ inch.	Price per dozen, 4.50.
No. 9½.	Diameter of rope, $\frac{1}{2}$ inch.	Price per dozen, 6.00.



Double Sheaves, Single Beckets.

No. 11.	Diameter of rope, $\frac{1}{4}$ inch.	Price per dozen, \$1.50.
No. 12.	Diameter of rope, $\frac{5}{16}$ inch.	Price per dozen, 2.25.
No. 13.	Diameter of rope, $\frac{3}{8}$ inch.	Price per dozen, 3.50.
No. 14.	Diameter of rope, $\frac{1}{2}$ inch.	Price per dozen, 5.00.

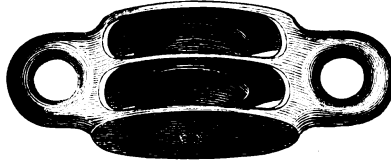
Nos. 1 and 3 single sheave, and 12 and 14 double sheave, can be furnished with Stationary Hook in place of the Eye if required.



Double Sheaves, Wrought Iron Hooks.

No. 11½.	Diameter of rope, $\frac{1}{4}$ inch.	Price per dozen, \$3.00.
No. 12½.	Diameter of rope, $\frac{5}{16}$ inch.	Price per dozen, 4.00.
No. 13½.	Diameter of rope, $\frac{3}{8}$ inch.	Price per dozen, 5.50.
No. 14½.	Diameter of rope, $\frac{1}{2}$ inch.	Price per dozen, 7.50.

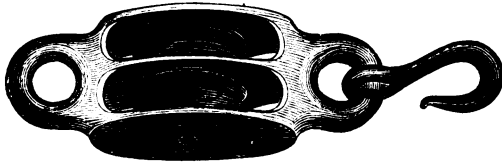
Tackle Blocks.



Double Sheaves, Double Beckets.

- No. 16. Diameter of rope, $\frac{1}{4}$ inch. Price per dozen, \$1.75.
- No. 17. Diameter of rope, $\frac{5}{16}$ inch. Price per dozen, 2.50.
- No. 18. Diameter of rope, $\frac{3}{8}$ inch. Price per dozen, 4.00.
- No. 19. Diameter of rope, $\frac{1}{2}$ inch. Price per dozen, 5.50.

We also furnish blocks with Beckets reversed, or with Stationary Hooks.



Double Sheaves, Becket, Wrought Iron Hooks.

- No. 16 $\frac{1}{2}$. Diameter of rope, $\frac{1}{4}$ inch. Price per dozen, \$3.50.
- No. 17 $\frac{1}{2}$. Diameter of rope, $\frac{5}{16}$ inch. Price per dozen, 4.50.
- No. 18 $\frac{1}{2}$. Diameter of rope, $\frac{3}{8}$ inch. Price per dozen, 6.00.
- No. 19 $\frac{1}{2}$. Diameter of rope, $\frac{1}{2}$ inch. Price per dozen, 8.00.

Anchor Fish Hooks.

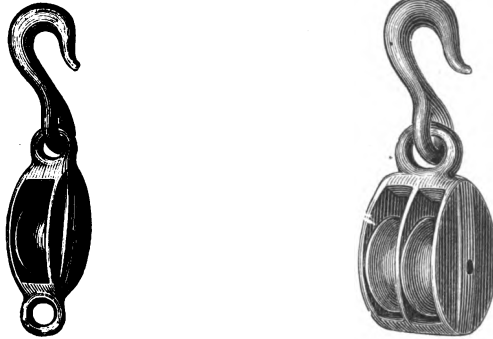
Wrought Iron.



Size. $\frac{3}{8}$, $\frac{7}{8}$, 1, 1 $\frac{1}{8}$, 1 $\frac{1}{4}$, inch diameter.

Price, Black, 14 cents per pound; Galvanized, 18 cents per pound.

Tackle Blocks.



LOOSE HOOKS.

Single Brass Sheaves.

- No. 20. Diameter of rope, $\frac{1}{2}$ inch. Price per dozen, \$7.80.
 No. 21. Diameter of rope, $\frac{5}{8}$ inch. Price per dozen, 12.00.
 No. 22. Diameter of rope, $\frac{3}{4}$ inch. Price per dozen, 18.00.

Double Brass Sheaves.

- No. 23. Diameter of rope, $\frac{1}{2}$ inch. Price per dozen, \$14.40.
 No. 24. Diameter of rope, $\frac{5}{8}$ inch. Price per dozen, 21.60.
 No. 25. Diameter of rope, $\frac{3}{4}$ inch. Price per dozen, 30.00.

Single Iron Sheaves.

- No. 26. Diameter of rope, $\frac{1}{2}$ inch. Price per dozen, \$7.20.
 No. 27. Diameter of rope, $\frac{5}{8}$ inch. Price per dozen, 10.80.
 No. 28. Diameter of rope, $\frac{3}{4}$ inch. Price per dozen, 15.00.

Double Iron Sheaves.

- No. 29. Diameter of rope, $\frac{1}{2}$ inch. Price per dozen, \$12.00.
 No. 30. Diameter of rope, $\frac{5}{8}$ inch. Price per dozen, 18.00.
 No. 31. Diameter of rope, $\frac{3}{4}$ inch. Price per dozen, 24.00.

THE PROVIDENCE TOOL COMPANY

Offer the Blocks described in the accompanying pages as a decidedly new article of manufacture. We offer them to consumers and dealers as being desirable on account of their

Lightness, Strength, Durability and Ease of Running.

We have aimed to make a reliable and durable Block which will not be affected by the action of the weather, and will be able to perform every duty any Block now in the market will perform. We would like a full and fair trial of these by the trade, and rely on their merits to convince parties of their usefulness and great advantage over any Blocks now in the market.

We put into any of Blocks which are wanted for special or extra hard work, an Anti-Friction Bushing, which will outlast any Bushing ever put into a Block.

Iron Tackle Blocks.

NORCROSS PATENT.

Galvanized.



In ordering, be particular to state whether with Iron or Rope Becketts.

TACKLE BLOCKS,

NORCROSS PATENTS.

MALLEABLE IRON, GALVANIZED.

We bush all the Blocks herewith described in pages 130 to 138 inclusive, of 6-inch shell and larger. We also bush the smaller sizes if desired.

With Link. Single Sheave.



- No. 40. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 41. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 42. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

With Stiff Hook, Plain or Front. Single Sheave.



- No. 43. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 44. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 45. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

With Stiff Hook, Side or Reversed. Single Sheave.



- No. 46. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 47. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 48. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

Anti-Friction Bushing put in to order, of a quality superior to any heretofore known.

With Hook, Plain or Front, Swivel on the Stud. Single Sheave.



- No. 49. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 50. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 51. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

With Hook, Plain or Front, Swivel on the Stud. Double Sheaves.



- No. 52. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. \$1.25 each.
- No. 53. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.45 each.
- No. 54. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.65 each.

With Hook, Reversed or Side, Swivel on the Stud. Single Sheave.



- No. 55. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 56. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 57. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25.

With Hook, Reversed or Side, Swivel on the Stud. Double Sheaves.



- No. 58. Shell, 4 in. long. Sheave, $2\frac{1}{4}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. \$1.25 each.
- No. 59. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.45 each.
- No. 60. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.65 each.

Anti-Friction Bushing put in to order, of a quality superior to any heretofore known.

With Link and Loose Hook, Plain or Front. Single Sheave.

- No. 61. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 62. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 63. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

With Link and Loose Hook, Plain or Front. Double Sheaves.

- No. 64. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. \$1.25 each.
- No. 65. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.45 each.
- No. 66. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.65 each.

With Link and Loose Hook, Reversed or Side. Single Sheave.

- No. 67. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 68. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 69. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

With Link and Loose Hook, Reversed or Side. Double Sheaves.

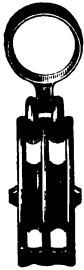
- No. 70. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. \$1.25 each.
- No. 71. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.45 each.
- No. 72. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.65 each.

Anti-Friction Bushing put in to order, of a quality superior to any heretofore known.

With Gaff Band Attachments. Single Sheave.

- No. 73. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 74. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 75. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

We are prepared to put into each size Block the following sizes of Gaff Attachments: $1\frac{3}{4}$, $2\frac{1}{4}$, $2\frac{1}{2}$, $2\frac{3}{4}$, $3\frac{1}{4}$, diameter.

With Gaff Band Attachments. Double Sheaves.

- No. 76. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{1}{2}$ in. \$1.25 each.
- No. 77. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{5}{8}$ in. \$1.45 each.
- No. 78. Shell, 5 in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.65 each.

We are prepared to put into each size Block the following sizes Gaff Attachments: $1\frac{3}{4}$, $2\frac{1}{4}$, $2\frac{1}{2}$, $2\frac{3}{4}$, $3\frac{1}{4}$, diameter.

NEW LIST OF DECK BLOCKS.**With Attachment to screw to Deck. Single Sheave.**

- No. 79. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diam. Opening in Block, $\frac{1}{2}$ in. 90 cents each.
- No. 80. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diam. Opening in Block, $\frac{5}{8}$ in. \$1.00 each.
- No. 81. Shell, 5 in. long. Sheave, 3 in. diam. Opening in Block, $\frac{3}{4}$ in. \$1.25 each.

With Attachment to screw to Deck. Double Sheaves.

- No. 82. Shell, 4 in. long. Sheave, $2\frac{1}{2}$ in. diam. Opening in Block, $\frac{1}{2}$ in. \$1.00 each.
- No. 83. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diam. Opening in Block, $\frac{5}{8}$ in. \$1.45 each.
- No. 84. Shell, 5 in. long. Sheave, 3 in. diam. Opening in Block, $\frac{3}{4}$ in. \$1.65 each.

Anti-Friction Bushing put in to order, of a quality superior to any heretofore known.

STEEL HOOKS. WHOLE SHELLS.

With Plain or Front Loose Hooks. Single Sheave.

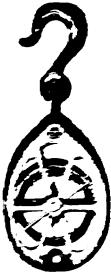
WITH SEAT FOR ROPE OR IRON BECKET.



- No. 110. Shell $4\frac{1}{2}$ in. long. Sheave $2\frac{1}{2}$ in. diameter.
Opening in Block $\frac{1}{4}$ in. \$1.50 each.
- No. 111. Shell $5\frac{1}{2}$ in. long. Sheave 3 in. diameter.
Opening in Block $\frac{1}{4}$ in. \$1.75 each.
- No. 112. Shell 6 in. long. Sheave $3\frac{1}{2}$ in. diameter.
Opening in Block $\frac{1}{4}$ in. \$2.50 each.
- No. 113. Shell $6\frac{1}{2}$ in. long. Sheave 4 in. diameter.
Opening in Block 1 in. \$2.75 each.

With Plain or Front Loose Hooks. Double Sheaves.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 114. Shell $4\frac{1}{2}$ in. long. Sheave $2\frac{1}{2}$ in. diameter.
Opening in Block $\frac{1}{4}$ in. \$1.75 each.
- No. 115. Shell $5\frac{1}{2}$ in. long. Sheave 3 in. diameter.
Opening in Block $\frac{1}{4}$ in. \$2.25 each.
- No. 116. Shell 6 in. long. Sheave $3\frac{1}{2}$ in. diameter.
Opening in Block $\frac{1}{4}$ in. \$3.00 each.
- No. 117. Shell $6\frac{1}{2}$ in. long. Sheave 4 in. diameter.
Opening in Block 1 in. \$3.50 each.

With Reversed or Side Loose Hooks. Single Sheave.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 108. Shell $4\frac{1}{2}$ in. long. Sheave $2\frac{1}{2}$ in. diameter. Opening in Block $\frac{1}{4}$ in. \$1.50 each.
- No. 109. Shell $5\frac{1}{2}$ in. long. Sheave 3 in. diameter. Opening in Block $\frac{1}{4}$ in. \$1.75 each.
- No. 110. Shell 6 in. long. Sheave $3\frac{1}{2}$ in. diameter. Opening in Block $\frac{1}{4}$ in. \$2.50 each.
- No. 111. Shell $6\frac{1}{2}$ in. long. Sheave 4 in. diameter. Opening in Block 1 in. \$2.75 each.

Anti-Friction Bushings put in to 6 and 6 1-2 in. sheaves above, of a quality superior to any heretofore known.

With Reversed or Side Loose Hook. Double Sheaves.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 112. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{3}{8}$ in. \$1.75 each.
- No. 113. Shell, $5\frac{1}{2}$ in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$2.25 each.
- No. 114. Shell, 6 in. long. Sheave, $3\frac{1}{2}$ in. diameter. Opening in Block, $\frac{7}{8}$ in. \$3.00 each.
- No. 115. Shell, $6\frac{1}{2}$ in. long. Sheave, 4 in. diameter. Opening in Block, 1 in. \$3.50 each.

With Swivel Hooks. Single Sheave.

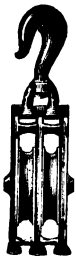
WITH SEAT FOR ROPE OR IRON BECKET.



- No. 116. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{3}{8}$ in. \$1.50 each.
- No. 117. Shell, $5\frac{1}{2}$ in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$1.75 each.
- No. 118. Shell, 6 in. long. Sheave, $3\frac{1}{2}$ in. diameter. Opening in Block, $\frac{7}{8}$ in. \$2.50 each.
- No. 119. Shell, $6\frac{1}{2}$ in. long. Sheave, 4 in. diameter. Opening in Block, 1 in. \$2.75.

With Swivel Hooks. Double Sheaves.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 120. Shell, $4\frac{1}{2}$ in. long. Sheave, $2\frac{1}{2}$ in. diameter. Opening in Block, $\frac{3}{8}$ in. \$1.75 each.
- No. 121. Shell, $5\frac{1}{2}$ in. long. Sheave, 3 in. diameter. Opening in Block, $\frac{3}{4}$ in. \$2.25 each.
- No. 122. Shell, 6 in. long. Sheave, $3\frac{1}{2}$ in. diameter. Opening in Block, $\frac{7}{8}$ in. \$3.00 each.
- No. 123. Shell, $6\frac{1}{2}$ in. long. Sheave, 4 in. diameter. Opening in Block, 1 in. \$3.50 each.

Anti-Friction Bushings put in to 6 and 6 I-2 in. shells above, of a quality superior to any heretofore known.

STEEL HOOKS. RIVETED FRAMES.

With Plain or Front Loose Hook and Link. Single Sheave.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 149. Shell, 7 in. long. Sheave, $4\frac{1}{2}$ in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$3.00 each.
- No. 150. Shell, 8 in. long. Sheave, 5 in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$4.00 each.
- No. 151. Shell, 9 in. long. Sheave, 6 in. diameter.
Opening in Block, $1\frac{3}{8}$ in. \$5.00 each.
- No. 152. Shell, 10 in. long. Sheave, 7 in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$6.00 each.
- No. 153. Shell, 12 in. long. Sheave, 8 in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$7.00 each.

With Plain or Front Loose Hook and Link. Double Sheaves.

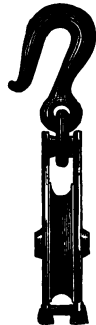
WITH SEAT FOR ROPE OR IRON BECKET.



- No. 153 $\frac{1}{2}$. Shell, 7 in. long. Sheave, $4\frac{1}{2}$ in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$5.00.
- No. 154. Shell, 8 in. long. Sheave, 5 in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$6.00.
- No. 155. Shell, 9 in. long. Sheave, 6 in. diameter.
Opening in Block, $1\frac{3}{8}$ in. \$7.00.
- No. 156. Shell, 10 in. long. Sheave, 7 in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$8.00.
- No. 157. Shell, 12 in. long. Sheave, 8 in. diameter.
Opening in Block, $1\frac{1}{2}$ in. \$10.00.

With Reversed or Side Loose Hook and Link. Single Sheave.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 157 $\frac{1}{2}$. Shell, 7 in. long. Sheave, $4\frac{1}{2}$ in. diameter. Open-
ing in Block, $1\frac{1}{2}$ in. \$3.00.
- No. 158. Shell, 8 in. long. Sheave, 5 in. diameter. Open-
ing in Block, $1\frac{1}{2}$ in. \$4.00.
- No. 159. Shell, 9 in. long. Sheave, 6 in. diameter. Open-
ing in Block, $1\frac{3}{8}$ in. \$5.00.
- No. 160. Shell, 10 in. long. Sheave, 7 in. diameter. Open
ing in Block, $1\frac{1}{2}$ in. \$6.00.
- No. 161. Shell, 12 in. long. Sheave, 8 in. diameter. Open-
ing in Block, $1\frac{1}{2}$ in. \$7.00.

Anti-Friction Bushings put in to all above, of a quality superior to any here-
tofore known.

With Reversed or Side Loose Hook and Link. Double Sheaves.



WITH SEAT FOR ROPE OR IRON BECKET.

- No. 161½. Shell, 7 in. long. Sheave, 4½ in. diameter. Opening in Block, 1½ in. \$5.00.
 No. 162. Shell, 8 in. long. Sheave, 5 in. diameter. Opening in Block, 1½ in. \$6.00.
 No. 163. Shell, 9 in. long. Sheave, 6 in. diameter. Opening in Block, 1¾ in. \$7.00.
 No. 164. Shell, 10 in. long. Sheave, 7 in. diameter. Opening in Block, 1½ in. \$8.00.
 No. 165. Shell, 12 in. long. Sheave, 8 in. diameter. Opening in Block, 1¾ in. \$10.00.

With Swivel Hooks. Single Sheave.

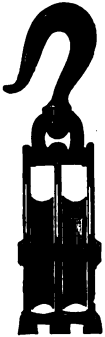
WITH SEAT FOR ROPE OR IRON BECKET.



- No. 165½. Shell, 7 in. long. Sheave, 4½ in. diameter. Opening in Block, 1½ in. \$3.00.
 No. 166. Shell, 8 in. long. Sheave, 5 in. diameter. Opening in Block, 1½ in. \$4.00.
 No. 167. Shell, 9 in. long. Sheave, 6 in. diameter. Opening in Block, 1¾ in. \$5.00.
 No. 168. Shell, 10 in. long. Sheave, 7 in. diameter. Opening in Block, 1½ in. \$6.00.
 No. 169. Shell, 12 in. long. Sheave, 8 in. diameter. Opening in Block, 1¾ in. \$7.00.

With Swivel Hooks. Double Sheaves.

WITH SEAT FOR ROPE OR IRON BECKET.

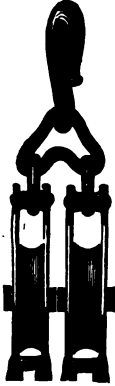


- No. 169½. Shell, 7 in. long. Sheave, 4½ in. diameter. Opening in Block, 1½ in. \$5.00.
 No. 170. Shell, 8 in. long. Sheave, 5 in. diameter. Opening in Block, 1½ in. \$6.00.
 No. 171. Shell, 9 in. long. Sheave, 6 in. diameter. Opening in Block, 1¾ in. \$7.00.
 No. 172. Shell, 10 in. long. Sheave, 7 in. diameter. Opening in Block, 1½ in. \$8.00.
 No. 173. Shell, 12 in. long. Sheave, 8 in. diameter. Opening in Block, 1¾ in. \$10.00.

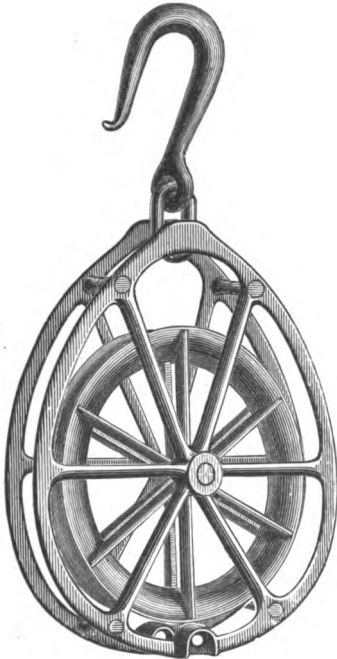
Anti-Friction Bushings put in to all above, of quality superior to any heretofore known.

BLOCKS FOR DOUBLE BOOM SHEETS.

WITH SEAT FOR ROPE OR IRON BECKET.



- No. 174. Shell, 7 in. long. Sheave, $4\frac{1}{2}$ in. diameter. Opening in Block, $1\frac{1}{8}$ in. \$6.00.
- No. 175. Shell, 8 in. long. Sheave, 5 in. diameter. Opening in Block, $1\frac{1}{8}$ in. \$7.50.
- No. 176. Shell, 9 in. long. Sheave, 6 in. diameter. Opening in Block, $1\frac{3}{8}$ in. \$9.00.
- No. 177. Shell, 10 in. long. Sheave, 7 in. diameter. Opening in Block, $1\frac{1}{2}$ in. \$10.00.
- No. 178. Shell, 12 in. long. Sheave, 8 in. diameter. Opening in Block, $1\frac{5}{8}$ in. \$12.00.



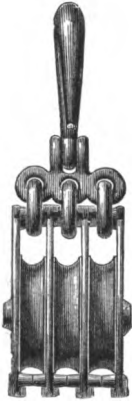
ROOFING BLOCKS.

PATENT.

Single Sheave.

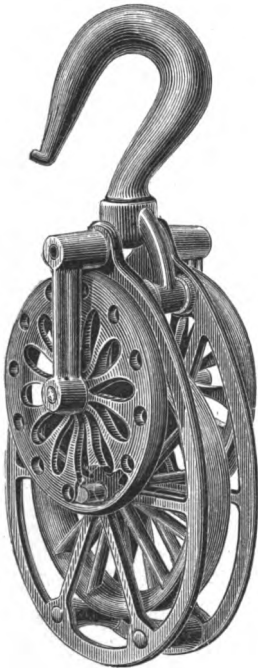
- No. 200. Shell, 10 in. Sheave, 7 in. diameter. Opening in Block, $1\frac{1}{2}$ in. \$5.00.

Anti-Friction Bushings put in to all above, of a quality superior to any heretofore known.



**BLOCKS MADE WITH TRIPLE SHEAVES
IF DESIRED.**

All sizes made to order. For prices, add one half to price of Double Blocks.

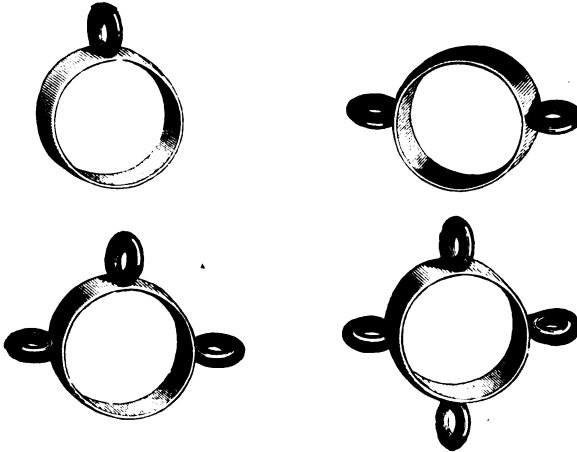


POWER HOISTING BLOCK.

**With Anti-Friction Bearing. Easy
Running, Durable. Entirely
New Principle.**

Sheave.	Shell.	Opening in Block.	Price.
Inches.	Inches.	Inches.	
$4\frac{1}{2}$	7	$1\frac{1}{8}$	\$8.00
6	8	$1\frac{1}{4}$	10.00
8	12	$1\frac{5}{8}$	15.00
10	16	$1\frac{7}{8}$	20.00
12	18	$2\frac{1}{4}$	25.00
15	22	$2\frac{1}{2}$	35.00

MAST, BOOM, AND GAFF WITNES.



	2½ in.	2¾ in.	3¼ in.	Inside Diameters.
With 1 Eye,	\$0.50	\$0.75	\$1.00	each.
With 2 Eyes,	.60	.85	1.10	each.
With 3 Eyes,	.70	.95	1.20	each.
With 4 Eyes,	.80	1.05	1.30	each.

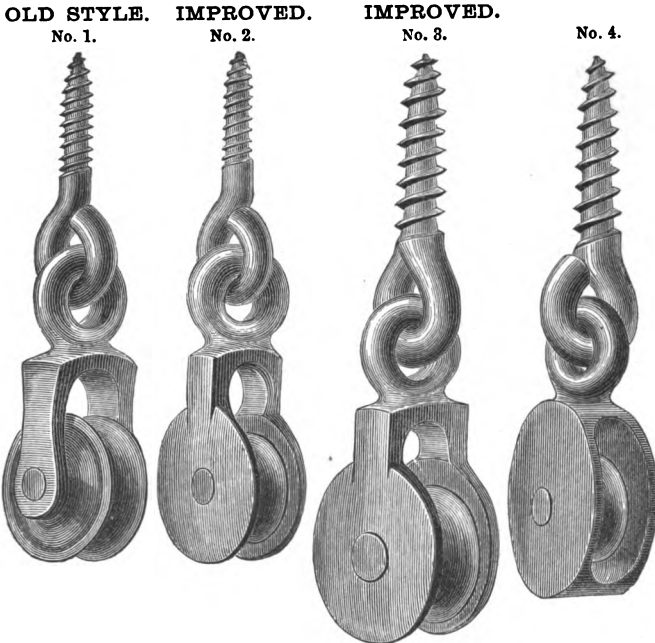
Plate Hangers.



2 inch, 18 cents each.	7 inch, 30 cents each.
3 inch, 20 cents each.	8 inch, 33 cents each.
4 inch, 23 cents each.	9 inch, 35 cents each.
5 inch, 25 cents each.	10 inch, 38 cents each.
6 inch, 27 cents each.	11 inch, 40 cents each.
12 inch, 42 cents each.	

The same are also made to screw into walls, etc., as well as with Plate to screw on. Prices with screw the same as above with Plate.

Screw Eye Awning Pulleys.



(CUTS SHOW ACTUAL SIZE)

No. 1. Galvanized Iron, 75 cts. per doz. Brass, \$1.50 per doz. Old style.

No. 2. Galvanized Iron, 75 cts. per doz. Brass, 1.50 per doz. Improved.
Improvement is in Shell of Block, so made as not to allow the cord to run off groove of sheave, as it is liable to do in the No. 1.

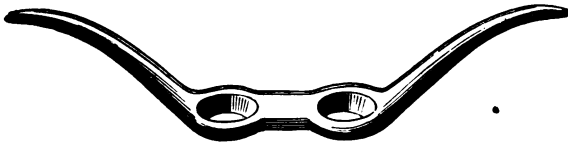
No. 3. Galvanized Iron, \$1.00 per doz. Brass, \$2.00 per doz.

No. 4. Galvanized Iron, 1.00 per doz. Brass, 2.00 per doz.

Corresponding to Galvanized Tackle Block No. 0.

Awning Cleats.

Curved Horns.



GALVANIZED IRON.

BRASS.

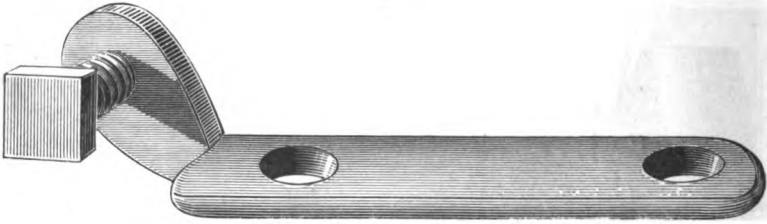
No. 1. \$0.40 per doz., 4½ in. long..... \$0.65 per doz., 4½ in. long.

No. 2. .60 per doz., 6 in. long..... 1.00 per doz., 6 in. long.

No. 3. .75 per doz., 8 in. long..... 1.50 per doz., 8 in. long.

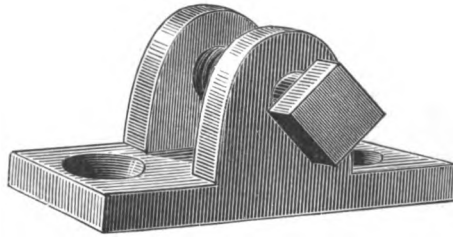
No. 4. 1.80 per doz., 10 in. long..... 2.25 per doz., 10 in. long.

Awning Feet.



Galvanized Iron.....\$1.75 per dozen pairs.

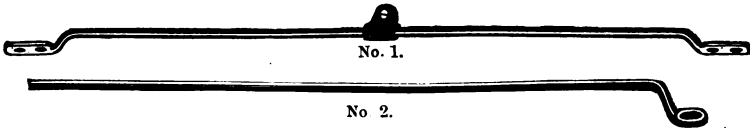
Flange Awning Hinges.



- No. 1. Galvanized Iron, 60 cts. per doz. Brass, \$1.00 per doz.
 No. 2. Galvanized Iron, 80 cts. per doz. Brass, 1.25 per doz.
 No. 3. Galvanized Iron, \$1.00 per doz. Brass, 1.50 per doz.

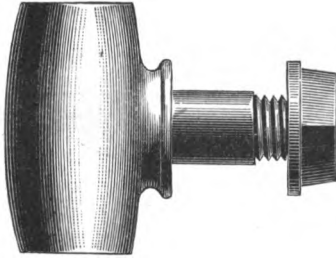
Awning Slide Rods.

Improved. Galvanized Iron.



No. 1. Round Iron, with Slide.				No. 2. Made from $\frac{3}{8}$ inch Round Iron.	
Length of Rod.	Price, each.			Length of Rod.	Price, each.
	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$ inch.		
1 foot	20	24	30 cents.	1 foot	10 cents.
1 foot 6 inches ..	24	28	34 cents.	1 foot 6 inches	12 cents.
2 feet	26	30	38 cents.	2 feet	14 cents.
2 feet 6 inches ..	30	34	42 cents.	2 feet 6 inches	16 cents.
3 feet	35	40	48 cents.	3 feet	20 cents.
3 feet 6 inches ..	42	48	54 cents.	3 feet 6 inches	25 cents.
4 feet	48	56	64 cents.	4 feet	30 cents.
4 feet 6 inches ..	55	64	74 cents.	4 feet 6 inches	36 cents.

Awning Slides.



GALVANIZED IRON.

- No. 1, for $\frac{3}{8}$ in. Rod, \$0.80 per doz.
 No. 2, for $\frac{1}{2}$ in. Rod, 1.00 per doz.

BRASS.

- No. 1, for $\frac{3}{8}$ in. Rod, \$1.25 per doz.
 No. 2, for $\frac{1}{2}$ in. Rod, 1.50 per doz.

AWNING SLIDES, WITH JAWS.

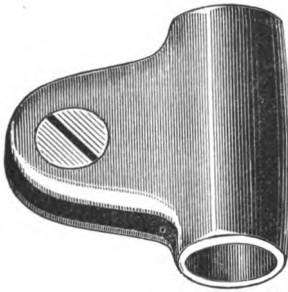
GALVANIZED IRON.

- $\frac{3}{8}$ inch.....\$1.00 per dozen.
 $\frac{1}{2}$ inch..... 1.20 per dozen.
 $\frac{5}{8}$ inch..... 1.75 per dozen.

The $\frac{3}{8}$ and $\frac{1}{2}$ inch are made to use with Round Iron. The $\frac{5}{8}$ inch are made to use with Square or Round Iron. State which are desired when ordering.

BRASS.

- $\frac{3}{8}$ inch.....\$1.25 per dozen.
 $\frac{1}{2}$ inch..... 1.50 per dozen.
 $\frac{5}{8}$ inch..... 2.25 per dozen.



IMPROVED AWNING SLIDES.

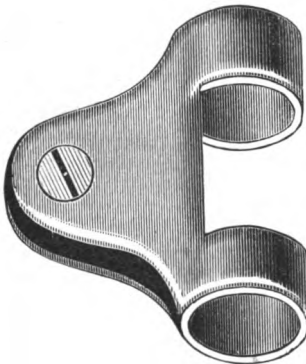
GALVANIZED IRON.

- $\frac{3}{8}$ inch.....\$1.00 per dozen.
 $\frac{1}{2}$ inch..... 1.20 per dozen.
 $\frac{5}{8}$ inch..... 1.75 per dozen.

BRASS.

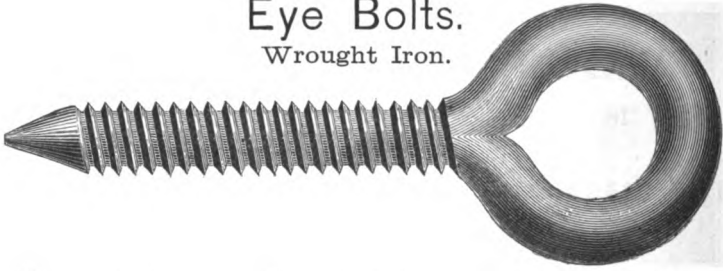
- $\frac{3}{8}$ inch.....\$1.25 per dozen.
 $\frac{1}{2}$ inch..... 1.50 per dozen.
 $\frac{5}{8}$ inch..... 2.25 per dozen.

This Slide will be found a great improvement on the old styles, as it allows the slides to pass freely over slight bends in the rod.



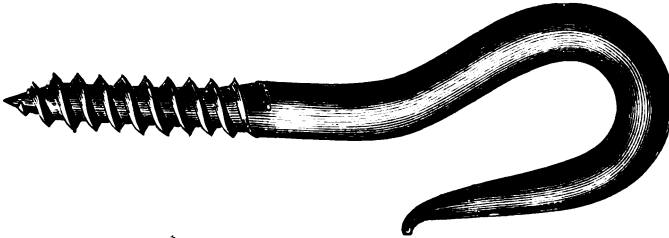
Eye Bolts.

Wrought Iron.

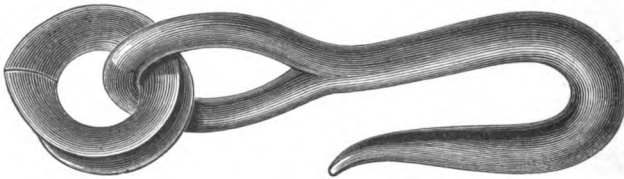


Size, $\frac{1}{4}$ inch . . .	Galvanized, \$1.00; Plain, \$0.90 per doz.
Size, $\frac{5}{16}$ inch . . .	Galvanized, 1.20; Plain, 1.10 per doz.
Size, $\frac{3}{8}$ inch . . .	Galvanized, 1.60; Plain, 1.50 per doz.
Size, $\frac{7}{8}$ inch . . .	Galvanized, 2.00; Plain, 1.90 per doz.
Size, $\frac{1}{2}$ inch . . .	Galvanized, 2.40; Plain, 2.25 per doz.
Size, $\frac{5}{8}$ inch . . .	Galvanized, 3.20; Plain, 2.95 per doz.
Size, $\frac{3}{4}$ inch . . .	Galvanized, 5.80; Plain, 5.30 per doz.
Size, $\frac{7}{8}$ inch . . .	Galvanized, 8.00; Plain, 7.25 per doz.
Size, 1 inch . . .	Galvanized, 9.60; Plain, 8.50 per doz.

Hammock Hooks.



Galvanized.	To Screw.
$\frac{3}{8}$	$\frac{7}{8}$
\$1.60	1.80
	$\frac{1}{2}$ inch.
	2.00 per dozen.



Galvanized.	With Thimbles.
$\frac{3}{8}$, $\frac{7}{8}$, $\frac{1}{2}$ inch.	All \$1.75 per dozen.

Eel Spears.

Galvanized.

Heavy, six prong, with socket, or straight shank, per dozen, \$15.00.

WOOD PULLEY BLOCKS.

Inside Iron-Strapped, and Rope-Strapped.

THE GIANT CAR PUSHER.

WEST'S PATENT LOCK FAUCET.

PLEASE ORDER BY OUR NUMBERS.

We give a specific number to each style of block. The same block never has the same number for both the plain (common) bushed, and the patent (roller) bushed, but a distinct number for each kind. We give *odd* numbers to blocks with plain bushed sheaves, and *even* numbers to blocks with roller bushed sheaves. The numbers have no reference to the *size* of the block. (Don't forget this.) When we refer to blocks as "patent" or "common," we have reference *only* to the kind of bushings in the sheaves, and not to any particular style of block.

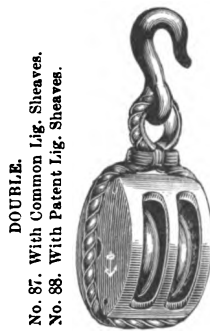
N. B. *All our wooden blocks are numbered as having wood sheaves.* When wanted with iron sheaves a cipher must be prefixed to regular number. For example, should you want 12 single 10 inch Common Blocks, inside iron strapped, common hook, and becket, with wood sheaves $6\frac{1}{2} \times 1\frac{5}{8} \times \frac{3}{4}$ inch for $1\frac{1}{2}$ diameter rope, you would have only to specify for 12 — 10 inch No. 7, and the story will all be told. If blocks are wanted with iron sheaves, it should read 12 — 10 inch No. 07. If with roller bushed sheaves, wood or iron, then No. 8 or 08, as the case might be, etc. First give us the number of blocks wanted, then their size (*i. e.*, length of shell), then their number as shown by illustrated cut. If the iron-work is to be galvanized, in short, if any changes are desired from the regular, write the order same as if regular, then add in explanation the changes desired. It may necessitate a little attention at first, before becoming familiar with our system of numbers, but it will pay you in the long run to do so.

TELEGRAPH NAMES.

To save expense, and to insure against mistakes when ordering by telegraph, we have introduced into our sheave lists, and a few other lists, "telegraph columns," giving a specific name to each size and kind, and in ordering you have only to use the name and say how many you want. As soon as practicable we propose to apply this to more of our lists.

Rope Strapped Blocks.

Steel Pins. Lignumvitæ or Iron Sheaves.



☞ If wanted with *Iron Sheaves* prefix an 0 to regular number, thus, 085, etc.

DIMENSIONS.			IRON BUSHED.			ROLLER BUSHED.		
Sheave.	For Rope.	Shell.	85.	87.	89.	86.	88.	90.
Inches.	Inches.	Inches.	Single.	Double.	Triple.	Single.	Double.	Triple.
2 $\times \frac{1}{2}$	$\frac{3}{8}$	3 $\frac{1}{2}$	Each. \$0.75	Each. \$1.35	Each. \$1.85	Each. \$1.15	Each. \$2.25	Each. \$2.75
2 $\frac{1}{4} \times \frac{3}{4}$	$\frac{1}{2}$	4	0.85	1.50	2.00	1.30	2.50	3.50
3 $\times \frac{1}{2}$	$\frac{5}{8}$	5	1.00	1.70	2.30	1.50	2.75	4.25
3 $\frac{1}{2} \times \frac{1}{2}$	$\frac{3}{4}$	6	1.21	2.10	2.70	2.00	3.70	5.00
4 $\times \frac{1}{2}$	$\frac{1}{2}$	7	1.42	2.45	3.10	2.35	4.35	5.85
5 $\times \frac{3}{4}$	1	8	1.95	3.25	4.15	3.00	5.60	7.75
5 $\frac{3}{4} \times \frac{1}{2}$	1	9	2.20	3.90	5.10	3.40	6.40	8.70
6 $\times \frac{1}{2}$	1 $\frac{1}{8}$	10	2.40	4.65	6.00	3.90	7.30	9.80
7 $\times \frac{1}{2}$	1 $\frac{1}{8}$	11	2.80	5.45	7.00	4.50	8.30	11.50
8 $\times \frac{1}{2}$	1 $\frac{3}{8}$	12	3.25	6.15	8.00	4.90	9.25	13.00

Inside Iron Strapped Blocks.

Common Hooks. Lignumvitæ, or Iron Sheaves. Improved Thick Middles and Steel Pins.

SINGLE.

No. 1. With Common Lig. Sheaves.
No. 2. With Patent Lig. Sheaves.



DOUBLE.

No. 3. With Common Lig. Sheaves.
No. 4. With Patent Lig. Sheaves.



TRIPLE.

No. 5. With Common Lig. Sheaves.
No. 6. With Patent Lig. Sheaves.



SINGLE.

No. 7. With Common Lig. Sheaves.
No. 8. With Patent Lig. Sheaves.



Becket.

DOUBLE.

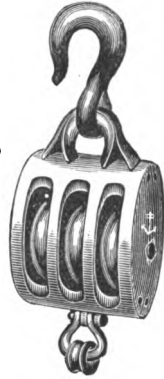
No. 9. With Common Lig. Sheaves.
No. 10. With Patent Lig. Sheaves.



Becket.

TRIPLE.

No. 11. With Common Lig. Sheaves.
No. 12. With Patent Lig. Sheaves.



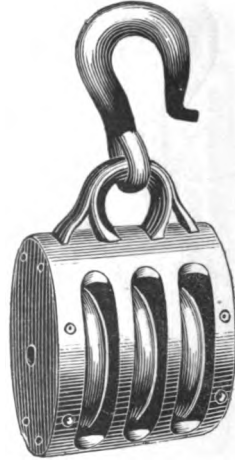
Becket.

☞ If wanted with *Iron Sheaves* prefix an 0 to regular number, thus, 07, etc.

DIMENSIONS.			COMMON IRON BUSHED.			PATENT ROLLER BUSHED.		
Sheave.	For Rope.	Shell.	Single.	Double.	Triple.	Single.	Double.	Triple.
Inches.	Inches.	Inches.	Each.	Each.	Each.	Each.	Each.	Each.
2 × 1/4	3/8	3 1/2	\$0.85	\$1.70	\$2.50	\$1.25	\$2.50	\$3.50
2 1/4 × 1/2	1/2	4	1.00	2.00	3.00	1.50	2.90	4.00
3 × 1/2	5/8	5	1.35	2.50	3.50	2.00	3.80	5.50
3 1/2 × 3/4	3/4	6	1.70	3.00	4.15	2.50	4.55	6.55
4 3/8 × 1 1/8	7/8	7	2.00	3.60	4.80	2.95	5.45	7.65
5 × 1 1/8	1	8	2.30	4.15	5.50	3.35	6.25	8.55
5 1/2 × 1 1/8	1 1/8	9	2.55	4.65	6.20	3.80	7.00	9.85
6 1/4 × 1 1/8	1 1/8	10	2.85	5.15	6.90	4.20	7.80	10.95
7 3/8 × 1 1/8	1 1/8	11	3.40	6.25	8.45	4.90	8.60	12.50
8 × 1 3/8	1 1/4	12	3.75	6.80	9.25	5.35	10.00	13.75
8 5/8 × 1 3/8	1 1/4	13	4.35	7.80	10.75	6.15	11.50	16.00
9 × 1 1/2	1 3/8	14	5.00	9.00	12.50	6.75	12.50	17.50
10 × 1 3/4	1 1/2	15	5.75	10.50	15.00	7.25	13.50	19.50

Heavy Tackle Blocks.

Extra Strong Hooks and Thick Middles, with Heavy Flat Cheeks. Edge Bolted.



**Becket and Thimble
SINGLE.**

No. 97 With Com. Lig.
Sheaves.
No. 98. With Pat. Lig
Sheaves.

DOUBLE.

No. 99. Com. no Becket.
No. 99½. Com. with Becket
No. 100. Pat. no Becket.
No. 100½. Pat. with Becket.

TRIPLE.

No. 101. Com. no Becket.
No. 101½. Com. with Becket.
No. 102. Pat. no Becket.
No. 102½. Pat. with Becket.

 If wanted with *Iron Sheaves* prefix an 0 to regular number, thus, 097, etc.

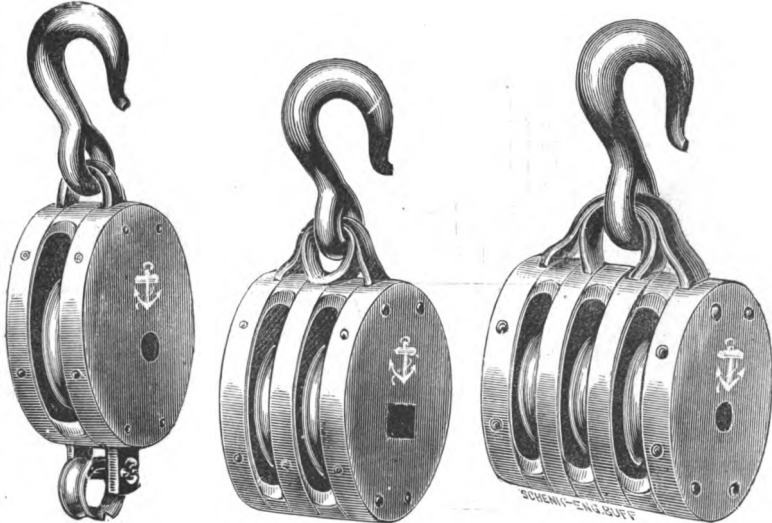
DIMENSIONS.			COMMON IRON BUSHED			PATENT ROLLER BUSHED.		
Sheave.	For Rope.	Shell.	Single.	Double.	Triple.	Single.	Double.	Triple.
Inches.	Inches.	Inches.	Each.	Each.	Each.	Each.	Each.	Each.
3½ × 1½	¾	6	\$2.00	\$3.60	\$5.00	\$2.75	\$5.15	\$7.45
4 × 1½	¾	7	2.35	4.30	5.85	3.25	6.10	8.70
5 × 1½	1	8	2.70	4.95	6.75	3.80	7.15	10.00
5½ × 1½	1	9	3.00	5.55	7.55	4.25	7.90	11.25
6 × 1½	1½	10	3.35	6.15	8.50	4.75	8.90	12.50
7 × 1½	1½	11	3.95	7.35	10.00	5.50	9.70	14.00
8 × 1½	1½	12	4.40	8.00	11.15	6.10	11.35	16.00
8½ × 1½	1½	13	5.00	9.10	12.70	6.80	13.25	18.25
9 × 1½	1½	14	5.70	10.40	14.60	7.50	14.50	20.00
10 × 1½	1½	15	6.50	12.00	17.25	8.50	16.50	22.50

Heavy Tackle Blocks are designed for work where *extra* strength and durability are required.

Can furnish with Patent All Steel Roller Bushed Sheaves if required. Iron Sheaves never check or warp, and are fast taking the place of Lignumvitæ, especially for all heavy Railroad or Mining work.

Thick Mortise Blocks.

Extra Heavy Inside Iron Straps. Extra Thick Middles and Cheeks. Edge Bolted.



SINGLE.
No. 117. With Com. Lig. Sheaves.
No. 118. With Pat. Lig. Sheaves.

DOUBLE.
No. 119. Com. no Becket.
No. 119½. Com. with Becket.
No. 120. Pat. no Becket.
No. 120½. Pat. with Becket.

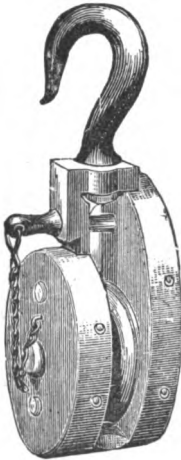
TRIPLE.
No. 121. Com. no Becket.
No. 121½. Com. with Becket.
No. 122. Pat. no Becket.
No. 122½. Pat. with Becket.

If wanted with *Iron Sheaves* prefix an 0 to number, thus, 0117, etc.

DIMENSIONS.			COMMON IRON BUSHED.			PATENT ROLLER BUSHED.		
Sheaves.	For Rope.	Shell.	Single.	Double.	Triple.	Single.	Double.	Triple.
Inches.	Inches.	Inches.	Each.	Each.	Each.	Each.	Each.	Each.
3½ × 1½	¾	6	\$2.40	\$4.50	\$6.30	\$3.10	\$6.00	\$9.00
4½ × 1½	1	7	2.80	5.25	7.35	3.65	7.10	10.80
5 × 1½	1	8	3.25	6.00	8.40	4.25	8.10	11.35
5½ × 1½	1	9	3.60	6.75	9.35	4.85	9.10	13.00
6½ × 1½	1	10	4.00	7.50	10.50	5.50	10.40	15.00
7½ × 1½	1	11	4.70	8.80	12.00	6.35	11.50	17.00
8 × 1½	1	12	5.30	9.90	13.75	7.00	13.00	19.00
8½ × 1½	1	13	6.00	11.00	15.50	7.85	15.00	21.00
9 × 1½	1	14	6.70	12.25	17.50	8.60	16.50	23.25
10 × 1½	1	15	7.70	14.00	20.50	9.50	18.00	26.50

Our Thick Mortise Blocks are especially well adapted for Railroad, Mining, and Contractors' work, and our sales are constantly increasing. Here again, our Iron Sheaves prove their superiority; and Sheaves bushed with our All Steel Patent Roller Bushings do not cut the pin, need no oil, and run with about fifty per cent. less friction than the common bushed. We have at last attained what the trade have been long seeking for, namely, a roller bushing *much stronger* than the ordinary brass bushing, thus giving greater strength to this most approved principle.

Snatch Blocks. WITH SWIVEL HOOK.



Size.	Rope.	Each.
In.	In.	Price.
6	$\frac{7}{8}$	\$4.80
7	1	5.65
8	1	6.45
9	$1\frac{1}{8}$	7.90
10	$1\frac{1}{4}$	8.80
12	$1\frac{3}{4}$	10.50
14	$1\frac{1}{2}$	12.00
16	2	13.50
18	$2\frac{1}{2}$	18.00
20	$2\frac{3}{4}$	24.50

No. 111. Common Lig. Sheave

No. 112. Patent Lig. Sheave.

No. 113. Common Iron Sheave.

No. 114. Patent Iron Sheave.

Wood Sides. Edge Bolted.

Wrought Iron Snatch Blocks. Patented February 8, 1876.



Size.	Rope.	Each.
In.	In.	Price.
7	$\frac{7}{8}$	\$6.00
8	1	7.50
9	$1\frac{1}{8}$	8.50
10	$1\frac{1}{4}$	9.50
12	$1\frac{3}{4}$	11.50
14	$1\frac{1}{2}$	13.50
16	2	18.00
18	$2\frac{1}{2}$	23.00
20	$2\frac{3}{4}$	31.00

No. 179. Common Iron Sheave.

No. 180. Patent Iron Sheave.

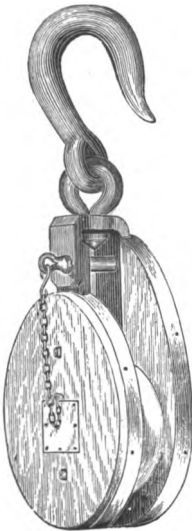
Edges rounded to protect rope.

Iron Sheaves. Polished Grooves.

Snatch Blocks for Oil Regions.

Loose Eye Hook and Swivel.

Patented January 15, 1878.



Size.	Rope.	Price.
In.	In.	Each.
14	$1\frac{3}{4}$	\$12.50
16	2	14.00
18	$2\frac{1}{2}$	18.50

No. 437. Common Iron Sheave.

No. 438. Patent Iron Sheave.

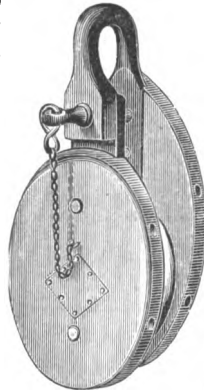
No. 435. Common Lig. Sheave.

No. 436. Patent Lig. Sheave.

“Derrick”
Pattern.

New Style.

Hook can be detached if desired and can be adjusted to any angle.



Hook detached.

Size.	Rope.	Price.
In.	In.	Each.
14	$1\frac{3}{4}$	\$13.00
16	2	14.50
18	$2\frac{1}{2}$	19.00

No. 481. Common Iron Sheave.

No. 482. Patent Iron Sheave.

No. 483. Common Lig. Sheave.

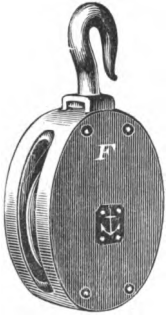
No. 484. Patent Lig. Sheave.

“Producers”
Pattern.

Farmers' Blocks for Horse Hay Forks.

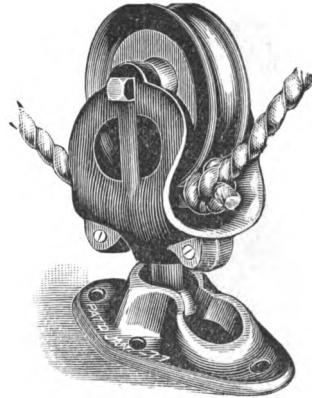
Lignumvitæ or Iron Sheaves.

 If wanted with Iron Sheaves prefix an 0 to number.



Style F.

No. 501. Common, Wood Sheave, no Becket.
No. 502. Patent Steel Rollers, no Becket.
No. 503. Common, wood Sheave, with Becket.
No. 504. Patent Steel Rollers, with Becket.



"Knot" Lead or Floor Block.

No. 507. Common Iron Sheaves.
No. 508. Patent Iron Sheaves.
No. 509. Base detached from Block.
No. 511. Same as No. 507, except it has swivel eye instead of base.
No. 512. Same as No. 508, except it has swivel eye instead of base.

Prices for Style F.

SIZE SHELL, 8 INCHES. FOR ROPE $\frac{3}{4}$ to 1 INCH.			SIZE SHELL, 10 INCHES. FOR ROPE 1 to $1\frac{1}{4}$ INCH.		
No.	Telegraph Name.	Price.	No.	Telegraph Name.	Price.
No. 501	Cable.	\$1.00	No. 501	Candor.	\$1.35
No. 502	Cadiz.	1.40	No. 502	Canton.	2.00
No. 503	Cairo.	1.05	No. 503	Central.	1.42
No. 504	Camden.	1.45	No. 504	Castile.	2.06

Can furnish Style F, double, at double price. When bushed with our All Steel Roller Bushings they are the best Hay Block made.

Prices for "Knot" Blocks, all Iron.

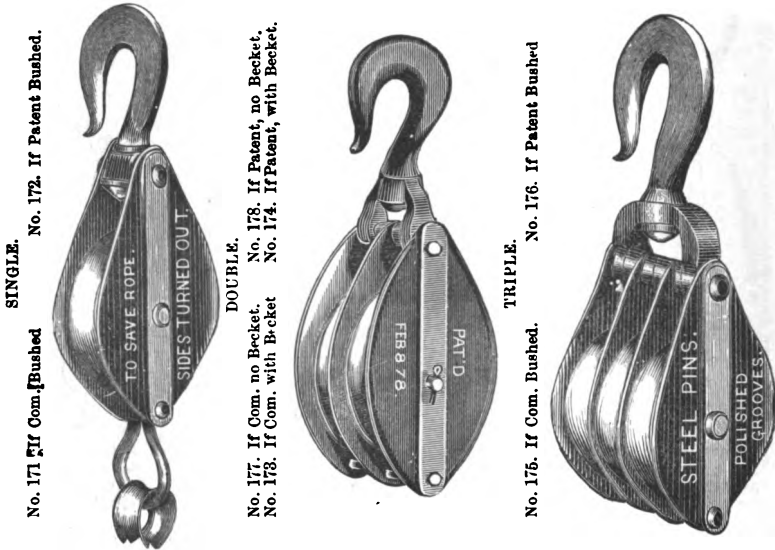
SIZE OF SHEAVE, 5 INCHES FOR ROPE $\frac{3}{4}$ to 1 INCH.			SIZE OF SHEAVE, 6 INCHES. FOR ROPE 1 to $1\frac{1}{4}$ INCH.		
No.	Telegraph Name.	Price.	No.	Telegraph Name.	Price.
No. 507	Dallas.	\$1.25	No. 507	Dayton.	\$1.50
No. 508	Dalton.	1.65	No. 508	Delhi.	2.15
No. 509	Danby.	.40	No. 509	Dover.	.45
No. 511	Downs.	1.00	No. 511	Dublin.	1.35
No. 512	Dryden.	1.40	No. 512	Dudley.	2.00

Screw Floor Hooks made from $\frac{3}{4}$ inch iron, No. 510. Price \$15 per gross.

Wrought Iron Tackle Blocks.

Iron Sheaves.

Patented February 8, 1876.

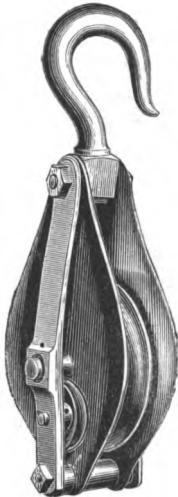


Improvements consist in new design for shell, with wearing edges of shell *rounded* or *turned* out to add to strength and to prevent their fraying the rope, thus obviating the greatest objection ever made to blocks with iron shells; sheaves are of iron, with **DEEP POLISHED** grooves, common bushed, or patent (anti-friction), all **STEEL** roller bushed as ordered; pins are **STEEL**, turned to size, and are of uniform size for both common bushed and patent bushed sheaves, thus making **SHEAVES INTERCHANGEABLE**.

LIST REVISED AND REDUCED, JANUARY, 1879.

Sheave.	Rope.	Chain.	Shell.	Single.	Double.	Triple.
Inches.	Inches.	Inches.	Inches.	Each.	Each.	Each.
3½ × 1½	½ to 5⁄8	—	6	\$2.00	\$3.25	\$4.00
4 × 1½	5⁄8 to ¾	—	7	2.75	4.00	5.00
4½ × 1½	¾ to 7⁄8	—	8	3.50	5.00	6.40
5 × 1¾	7⁄8 to 1	1¾	9	4.60	7.00	9.00
6 × 1¾	1 to 1½	1½	10	5.30	9.00	11.50
7 × 1½	1½ to 1¾	1¾	12	6.50	11.50	14.75
8 × 1¾	1½ to 1¾	1¾	14	9.00	17.00	23.00
9 × 2	1¾ to 1¾	1¾	16	14.30	23.50	33.40
10 × 2½	2 to 2½	2½	18	24.50	45.50	59.00
11 × 2½	2½ to 2½	2½	20	33.50	57.75	74.00

The Common Sense Hoisting Block.

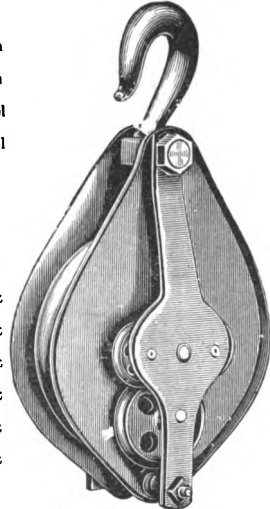


No. 440.

No. 440, with Iron Sheave and two plain bushed bearings.
 No. 441, with Lig. Sheave and two plain bushed bearings.
 No. 450, with Iron Sheave and six steel roller bushed bearings.
 No. 451, with Lig. Sheave and six steel roller bushed bearings.

In addition to above Styles, we make

No. 442, which is same as 440, except we run end of pin in bronze boxes.
 No. 443, which is same as 441, except we run end of pin in bronze boxes.
 No. 444, which is same as 442, except with Dock Screw.
 No. 445, which is same as 443, except with Dock Screw.
 No. 452, which is same as 450, except with Dock Screw.
 No. 453, which is same as 451, except with Dock Screw.



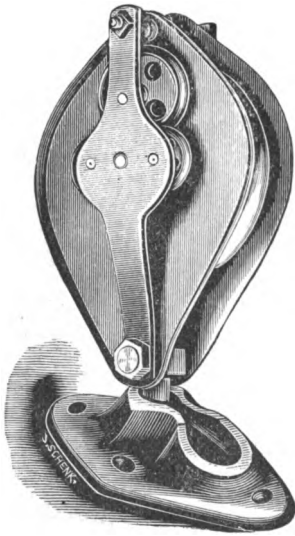
No. 450.

Price List.

Size of Sheaves . . .	6 × 1½	8 × 1¾	10 × 1½	12 × 1¾	15 × 1½ in.
Price No. 440 and 441	\$7.50	9.00	11.50	14.00	16.00 each.
Price No. 442 and 443	\$8.25	10.00	12.50	15.00	17.00 each.
Price No. 444 and 445	\$9.75	11.50	14.00	17.00	19.00 each.
Price No. 450 and 451	\$10.00	11.50	14.00	16.75	19.50 each.
Price No. 452 and 453	\$11.50	13.00	15.75	18.75	21.50 each.

In styles No. 450 and 446 the bearings H and E (see cut No. 525, page 154) are patent roller bushed, and never require any oil. The one item of expense for rope has become so large as to demand serious attention and the seeking of a remedy. One great secret of the success of our block is that when the power is applied, the sheave G offers the least possible resistance and it moves *right off*. The pin C rests on the roller bearing H, with just about the same security and power to resist as a man standing on the side of a barrel. A *very little* pressure and he "moves off." Or, as another expressed it, "Like these new-fashioned Mullay skates (turned up behind), the more you want to stop, the more you go ahead." The block is fastened together with bolts and nuts, and we can duplicate any part of the wrought or cast work.

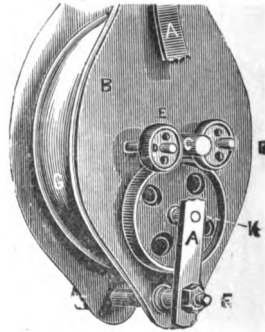
Cut No. 526 shows our new Patent Base for dock use. These can be fastened to timber with lag screws, and need not be removed to change location of block, as we can furnish, at small cost, extra bases that can be located in convenient positions, and block can be changed on short notice and with little labor. The neck of block swivels in the head of block and also in the base, and inclines to any angle to suit position of rope.



No. 446.

No. 446, with Iron Sheave and six steel roller bushed bearings.

No. 447, with Lig. Sheave and six steel roller bushed bearings.



No. 525.



No. 526.

We make additional Styles.

No. 448, with base like 526, otherwise like No. 442, see page 153.

No. 449, with base like 526, otherwise like No. 443, see page 153.

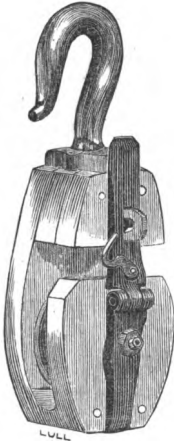
Price List.

Size of Sheaves	6 × 1½	8 × 1¾	10 × 1¾	12 × 1¾	15 × 1¾ in.
Price No. 446 and 447	\$11.50	13.00	15.50	18.50	21.50 each.
Price No. 448 and 449	\$10.00	11.50	14.00	16.75	19.00 each.
Price No. 526, only	\$1.00	1.00	1.25	1.25	1.25 each.

Referring to cut No. 525, which shows part of one of our Common Sense Blocks, with a portion of one of the outside straps cut away, showing the principle of its working. The pin C is keyed fast into the hub of the sheave G, and it (the pin) rests on and turns on the roller bearings H (one on each side of block). The two smaller bearings, E E, are intended for use when there may be a side draft, and a tendency for the pin to move off from its common centre. The large sheave G turns about five times while the bearing H turns once. The pin C, being fast in the sheave G, affords the rope a powerful leverage, as it acts on the long arm of a lever. The advantage of a tight pulley revolving with a shaft, over a loose pulley revolving on a shaft, is daily demonstrated in every machine shop in the land. The sheave G turning so much faster than the bearings H, gives the required speed with comparatively slow motion at all the other frictional points, thereby reducing the friction to the finest point yet obtained.

Snatch Blocks.

Heavy, with Outside Iron Strap, Swivel Hook, Iron or Wood Sheaves, Plain Bushed, or Patent Steel Roller Bushed.



Length of Block.	Mortise.	For Rope Diameter.	Price.
Inches	Inches.	Inches.	Each.
8	1½	1	\$7.00
10	1½	1½	7.50
12	1¾	1½	10.85
14	2	1¾	14.30
16	2¼	2	16.70
18	2½	2¼	21.65
20	2¾	2½	27.75
22	3	2¾	34.70

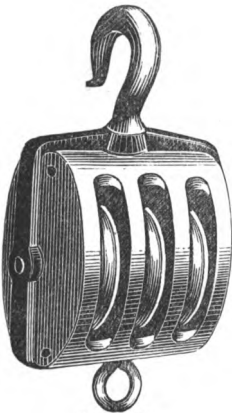
No. 549 has Plain Iron Sheave.
 No. 550 has Patent Iron Sheave (with steel rollers).
 No. 551 has Plain Wood Sheave.
 No. 552 has Patent Wood Sheave (with steel-rollers).

We furnish the larger sizes with eye and swivel (to order) without, extra cost.

Outside Iron Strapped Blocks.

Stiff Swivel Hooks. Lignumvitæ Sheaves and Steel Pins.

If wanted with Iron Sheaves prefix an 0 to regular number, thus 0133, etc.



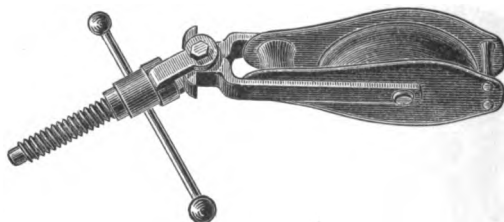
BECKET.

PLAIN IRON BUSHED.				PATENT ROLLER BUSHED.		
Size.	Single. No. 133.	Double. No. 135.	Triple. No. 137.	Single. No. 134.	Double. No. 136.	Triple. No. 138.
Inches.	Each.	Each.	Each.	Each.	Each.	Each.
5	\$1.65	\$2.20	\$2.70	\$2.00	\$2.90	\$3.75
6	2.00	2.65	3.25	2.40	3.25	4.50
7	2.30	3.10	3.80	2.90	4.10	5.30
8	2.65	3.50	4.35	3.20	4.60	6.05
9	2.95	3.95	4.90	3.60	5.20	6.80
10	3.70	5.20	6.60	4.50	6.80	8.70
11	4.30	6.15	7.90	5.20	7.90	9.90
12	4.70	6.70	8.65	5.65	8.60	10.50

No. 137. Triple, Common, with wood sheaves.
 No. 133. Triple, Patent, with wood sheaves.

Wrought Iron Dock Blocks.

New Pattern.



No. 420. Adjustable Hinge Joint and Swivel, with Iron Sheave Patent Steel Roller Bushed.

We make two sizes.

14 inch Shell, for 1 to $1\frac{1}{4}$ inch diameter rope. Price \$15.00 each.

16 inch Shell, for $1\frac{3}{8}$ to $1\frac{1}{2}$ inch diameter rope. Price \$18.00 each.

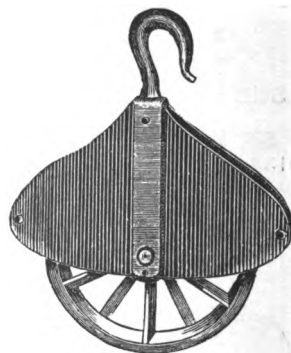
Wrought Iron Gin Blocks,

WITH SWIVEL HOOKS.

Strongest and Best.

Extra Strong for Hemp or Wire.

Medium Strength for Rope.



No. 425. With Com. Bushed Iron Sheaves.

No. 426. With Patent Steel Rollers.

No. 427. With Com. Bushed Iron Sheaves.

No. 428. With Patent Steel Rollers.

Diameter of Sheaves.	8	10	12	15	18 inch.
Price, No. 425, Common .	—	—	\$8.50	10.00	13.00 each.
Price, No. 426, Patent .	—	—	9.50	11.50	15.00 each.
Price, No. 427, Common .	\$3.75	5.50	7.50	—	— each.
Price, No. 428, Patent .	4.38	6.25	8.50	—	— each.

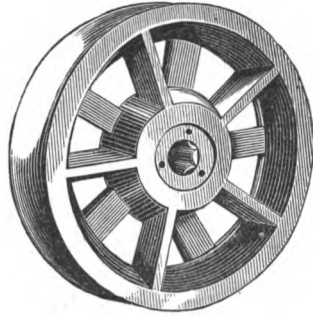
 Special sizes to order for Hemp, or Wire Rope, or Chain. With any style of fastening specified

Improved Open Iron Sheaves, For our Regular Blocks.



Cut No. 159. Common Bushed

Patented February 8, 1876.

No. 160. Improved Patent Iron Sheave,
Steel Roller Bushed. Polished Groove.

 Sizes 8 inches and under are solid. Sizes 2½ inches and under are galvanized.

Size of Sheave.	Hole for Pin full size.	For Block.	Telegraph Name.	Common. No. 159.	Telegraph Name.	Patent Steel Rollers No. 160.
Inches.	Inches.	Inches.		Each.		Each.
1½ × ¾	¼	2½	Adams.	\$0.06	Bacon.	\$0.40
1½ × ¾	¼	3	Akron.	.07	Baker.	.43
2 × ¾	¼	3½	Afton.	.08	Banks.	.46
2½ × ¾	¾	4	Albany.	.10	Bangor.	.50
2½ × ¾	¾	4½	Alba.	.13	Berlin.	.55
3 × 1	¾	5	Adrian.	.15	Bard.	.60
3½ × 1	¾	6	Arcade.	.20	Barnes.	.70
4½ × 1	¾	7	Alaska.	.30	Barr.	.90
5 × 1	¾	8	Alpine.	.40	Barton.	1.10
5 × 1	* ½ & ¾	Thick 8	Albion.	.45	Bascom.	1.25
5½ × 1	¾	9	Alden.	.50	Batavia.	1.30
5½ × 1	¾	Thick 9	Alert.	.55	Bath.	1.50
6½ × 1	¾	10	Alexis.	.60	Bear.	1.50
6½ × 1	* ¾ & 1	Thick 10	Attica.	.70	Beech.	1.75
7½ × 1	¾	11	Antrum.	.80	Belden.	1.75
8 × 1	¾	12	Amboy.	1.00	Belfast.	2.00
8 × 1	* ¾ & 1	Thick 12	Austin.	1.20	Boston.	2.25
8½ × 1	¾	13	Argos.	1.15	Beloit.	2.25
9 × 1	¾	14	Alps.	1.30	Bingen.	2.50
9 × 1	* ¾ & 1	Thick 14	Alsace.	1.50	Bird.	3.00
10 × 1	¾	15	Alto.	1.50	Bishop.	3.00
10 × 1	¾	Thick 15	Avoca.	1.70	Blaine.	3.50
10½ × 1	¾	16	Amber.	1.70	Blood.	3.50
10½ × 2	* ¾ & 1	Thick 16	Avon.	2.00	Boone.	4.25

* The first size gives the hole in Common, the second in Patent.

N. B. For list of other sizes, see pages 170 to 176.

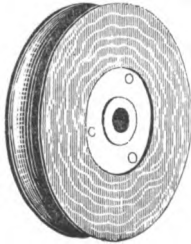
Lignumvitæ Sheaves,

For our Regular Blocks.

COMMON.

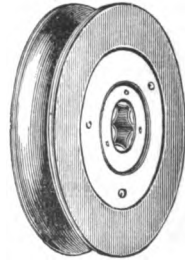
PATENT.

Has iron (or common) bushing; all blocks numbered with odd numbers have this kind of sheave and bushing.



No. 141.

Has patent composition roller bushing; all blocks numbered with even numbers have this style of sheave and bushing.



No. 142.

In this and several of our lists we have given names to be used in telegraphing. For example, if you want a Common Sheave for a 6 inch block, the list shows its telegraph name to be *Echo*. If Patent, same size, the name would be *Farmer*.

Size of Sheave.	Hole for Pin full size.	For Block.	Telegraph Name. Common.	Common. Bushed. No. 141.	Telegraph Name. Patent.	Patent Rollers. No. 142.
Inches.	Inches.	Inches.		Each.		Each.
2 × $\frac{1}{2}$	$\frac{1}{4}$	3 $\frac{1}{2}$	Eagle.	\$0.13	Farina.	\$0.53
2 $\frac{1}{4}$ × $\frac{5}{8}$	* $\frac{1}{4}$ & $\frac{3}{8}$	4	Earl.	.15	Fargo.	.55
3 × $\frac{1}{2}$	$\frac{3}{8}$	5	Easton.	.20	Farley.	.60
3 $\frac{1}{2}$ × $\frac{1}{2}$	$\frac{3}{8}$	6	Echo.	.25	Farmer.	.70
4 × $1\frac{1}{8}$	$\frac{1}{2}$	7.	Eden.	.30	Fenton.	.90
5 × $1\frac{3}{8}$	$\frac{1}{2}$	8	Edgar.	.40	Flint.	1.10
5 × $1\frac{5}{8}$	† $\frac{1}{2}$ & $\frac{5}{8}$	Thick 8	Edina.	.45	Floyd.	1.25
5 $\frac{1}{4}$ × $1\frac{3}{8}$	$\frac{5}{8}$	9	Egypt.	.50	Forest.	1.30
5 $\frac{3}{4}$ × $1\frac{7}{8}$	$\frac{5}{8}$	Thick 9	Eldred.	.55	Forks.	1.50
6 $\frac{1}{4}$ × $1\frac{1}{2}$	$\frac{5}{8}$	10	Elba.	.60	Foster.	1.50
6 $\frac{1}{2}$ × $1\frac{1}{2}$	† $\frac{5}{8}$ & $\frac{3}{4}$	Thick 10	Eldon.	.70	Fowler.	1.75
7 × $1\frac{1}{2}$	$\frac{3}{4}$	11	Elgin.	.80	Fulton.	1.75
8 × $1\frac{3}{8}$	$\frac{3}{4}$	12	Elko.	1.00	Gaines.	2.00
8 × $1\frac{5}{8}$	† $\frac{3}{4}$ & $\frac{7}{8}$	Thick 12	Ellis.	1.20	Galena.	2.25
8 $\frac{1}{2}$ × $1\frac{3}{8}$	$\frac{3}{4}$	13	Elma.	1.15	Galt.	2.25
9 × $1\frac{1}{2}$	$\frac{3}{4}$	14	Elroy.	1.30	Geneva.	2.50
9 × $1\frac{3}{4}$	† $\frac{3}{4}$ & $\frac{7}{8}$	Thick 14	Ely.	1.50	Genoa.	3.00
10 × $1\frac{3}{8}$	$\frac{7}{8}$	15	Elyria.	1.50	Gibson.	3.00
10 × $1\frac{7}{8}$	$\frac{7}{8}$	Thick 15	Erie.	1.70	Gilman.	3.50

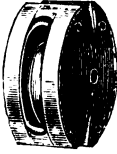
* Patent lignumvitæ sheaves for 4 inch blocks and under have of necessity $\frac{1}{4}$ inch pin holes, as they are too small to admit a larger flange bushing.

† In thick sheaves the smallest size pin hole is for the Common and the other for the Patent.

We can furnish Patent Sheaves roller bushed with brass shells and steel rollers, or steel shells and steel rollers, at same price as above. The latter are the strongest made, and we are the sole manufacturers.

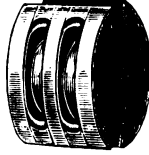
Blocks for Rope Straps.

Shells Riveted. Lignumvitæ or Iron Sheaves.



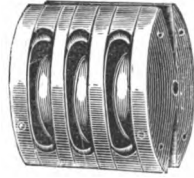
SINGLE.

No. 91. If Common.
No. 92. If Patent.



DOUBLE.

No. 93. If Common.
No. 94. If Patent.



TRIPLE.

No. 95. If Common.
No. 96. If Patent.

N. B. For Blocks with *Iron Sheaves* prefix an 0 to regular number, thus, 091, etc. For sizes 3, 3½, and 4 inch more especially, we recommend our Galvanized Iron Sheaves as being more satisfactory than the Lignumvitæ.

LIST REVISED AND REDUCED JANUARY, 1879.

DIMENSIONS		IRON BUSHED.			PATENT BUSHED.		
Sheave.	Shell.	No. 91. Single.	No. 93. Double.	No. 95. Triple.	No. 92. Single.	No. 94. Double.	No. 96. Triple.
Inches.	Inches.	Each.	Each.	Each.	Each.	Each.	Each.
1¼ × ½	3	\$0.21	\$0.42	\$0.63	\$0.50	\$1.00	\$1.50
2 × ½	3½	.25	.49	.74	.58	1.15	1.73
2¼ × ¾	4	.28	.56	.84	.66	1.32	1.98
2½ × ¾	4½	.32	.63	.95	.75	1.49	2.24
3 × 1¼	5	.35	.70	1.05	.83	1.66	2.49
3¼ × 1¼	5½	.39	.77	1.16	.91	1.82	2.73
3½ × 1½	6	.42	.84	1.26	.99	1.98	2.97
4½ × 1¾	7	.49	.98	1.47	1.16	2.32	3.48
5 × 1¾	8	.56	1.12	1.68	1.32	2.64	3.96
5½ × 1¾	9	.72	1.44	2.16	1.62	3.24	4.86
6¼ × 1¾	10	.80	1.60	2.40	1.80	3.60	5.40
7½ × 1¾	11	1.10	2.20	3.30	2.31	4.62	6.93
8 × 1¾	12	1.32	2.64	3.96	2.52	5.04	7.56

Blocks for Rope Straps.

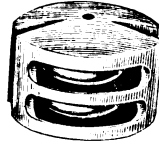
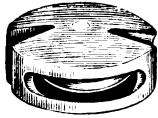
Brass Sheaves.

3 to 6 inch Ash Shells	{ Common.	No. 527	. 14 cents per inch.
	{ Patent.	No. 528	. 24 cents per inch.
3 to 6 inch Lig. Shells	{ Common.	No. 529	. 15 cents per inch.
	{ Patent.	No. 530	. 27 cents per inch.

Blocks for Rope Straps.

SHELLS SOLID (NOT RIVETED).

Lignumvitæ, Galvanized Iron, and Brass Sheaves.



Length of block	2	2½	3	3½	4	inch.
Diameter of sheave	1¼	1½	1¾	2	2¼	inch.
Diameter for rope	1⅜	1½	1⅞	2	2¼	inch.

No. 460, single Lig. Sheave, not bushed	\$0.09	\$0.10	\$0.11	\$0.12	\$0.15	ea.
No. 461, double Lig. Sheave, not bushed	.18	.20	.22	.24	.30	ea.
No. 463, single Iron Sheave, galvanized	.11	.13	.14	.16	.18	ea.
No. 464, double Iron Sheave, galvanized	.22	.26	.28	.32	.36	ea.
No. 466, single Iron Sheave, roller bushed	.00	.43	.45	.50	.55	ea.
No. 467, double Iron Sheave, roller bushed	.00	.86	.90	1.00	1.10	ea.
No. 469, single Brass Sheave, plain bushed	.17	.20	.23	.28	.33	ea.
No. 470, double Brass Sheave, plain bushed	.34	.40	.46	.56	.65	ea.
No. 471, single Brass Sheave, roller bushed	00	.60	.65	.75	.85	ea.
No. 472, double Brass Sheave, roller bushed	00	1.20	1.30	1.50	1.70	ea.

Clothes Line Blocks.

Rope Strapped.

Size 3½ inches, No. L.

Price \$13.50.



4 inches, No. M.

\$15.00 per gross.

Wooden Awning Blocks.

Lignumvitæ Sheaves, not Bushed.

Plain.

Single, No. 301.
Double, No. 303.

Rope Strapped, with Eye.

Single, No. 307.
Double, No. 309.

Without Straps.

	1½	2	2½	3	3½	4 inch.
Single, No. 301,	7½	8	10	11	13	16 cents each.
Double, No. 303,	15	16	20	22	26	32 cents each.

Strapped, with Eye.

	1½	2	2½	3	3½	4 inch.
Single, No. 307,	10	11	13	15	17	20 cents each.
Double, No. 309,	20	22	26	30	34	40 cents each.

Upper Dead Eyes.

FOR WIRE OR HEMP ROPE.



No. 146.

Hearts.

FOR WIRE OR HEMP ROPE.



No. 147.

Bull's Eyes.

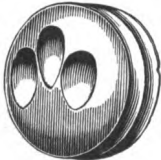
FOR WIRE OR HEMP ROPE.



No. 152.

Lower Dead Eyes.

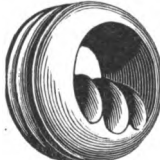
FOR IRON STRAPS.



No. 149.

Hearts.

FOR IRON STRAPS.



No. 151.

Bull's Eyes.

FOR IRON STRAPS.



No. 153.

Lignumvitæ Dead Eyes, Hearts, and Bull's Eyes.

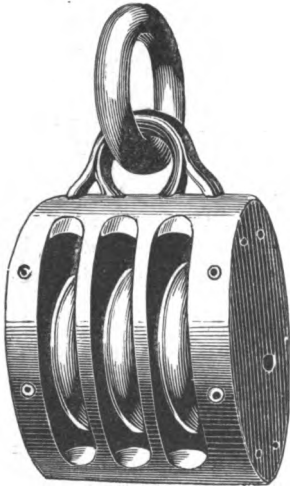
Size 7 in. diameter and under, 13 cents per inch.

7½	8	8½	9	9½	10 inch.
\$1.25	1.50	2.00	2.75	3.50	4.25 each.

In ordering, be careful to state whether for wire or hemp rope.

Heavy Purchase Blocks with Rings.

Lignumvitæ Sheaves, Iron Bushed.



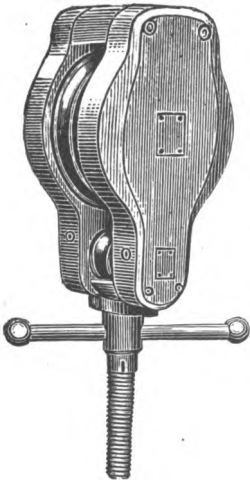
Triple, No. 109.

Diameter of Rope.	Length of Shell.	Single. No. 105.	Double. No. 107.	Triple. [No. 109.]
Inches.	Inches.	Each.	Each.	Each.
1 $\frac{3}{4}$	16	\$11.00	\$20.50	\$28.50
2	18	18.00	32.00	42.00
2 $\frac{1}{4}$	20	23.00	40.00	53.00
2 $\frac{1}{2}$	22	30.00	50.00	65.00

Heavy Purchase Blocks with solid or open *Iron Sheaves*, patent steel roller bushed, or plain bushed with solid steel bushing set into the iron hub, furnished to order. These make the strongest and most durable bushings made.

Dock Blocks.

Patent Roller Bushed, Lignumvitæ or Iron Sheaves.



No. 104, Patent Lig. Sheave.
No. 0104, Patent Iron Sheave

Size of Sheave.	For Rope.	Length of Shell.	Price.
Inches.	Inches.	Inches.	Each
6 $\times$ 1 $\frac{3}{8}$	1	10	\$9.40
7 $\times$ 1 $\frac{1}{2}$	1 $\frac{1}{8}$	12	10.75
8 $\times$ 1 $\frac{5}{8}$	1 $\frac{1}{4}$	14	11.75
9 $\times$ 1 $\frac{7}{8}$	1 $\frac{1}{2}$	16	16.00
10 $\times$ 2 $\frac{1}{8}$	2	20	22.00

The above with patent all *steel* roller bushed sheaves without extra charge. Our new *All Steel Patent Roller Bushings* are more than twice as strong as the old style of Brass, and better adapted for Dock use.

Blocks with Stiff Swivel Hooks.

SINGLE.
No. 25. Com., see page 147.
No. 26. Pat., see page 147.



DOUBLE.
No. 27. Com., see page 147.
No. 28. Pat., see page 147.



TRIPLE.
No. 29. Com., see page 147.
No. 30. Pat., see page 147.



Blocks with Stiff Swivel Hooks and Beckets.

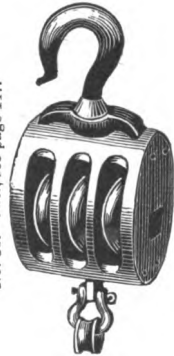
SINGLE.
No. 31. Com., see page 147.
No. 32. Pat., see page 147.



DOUBLE.
No. 33. Com., see page 147.
No. 34. Pat., see page 147.

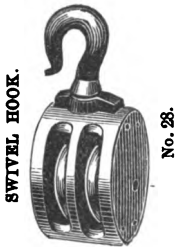


TRIPLE.
No. 35. Com., see page 147.
No. 36. Pat., see page 147.



Blocks for Boat Davits.

Lignumvitæ Sheaves Patent Bushed.



SWIVEL HOOK.

No. 28.



SWIVEL EYE.

No. 330.



SCREW BOLT AND NUT.

No. 330

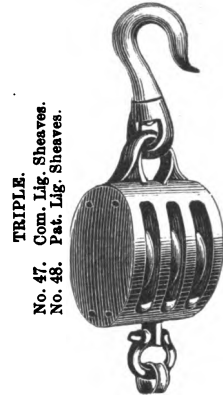
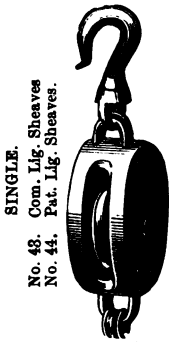
For Price List see page 147. In ordering, give size of rope to be used, and state *how many with becket*s.

Where the number of blocks required with becket is not named in an order we send enough to complete the required combinations; or if for stock, we give on single two thirds, and double one half the number *with becket*s without extra charge. Orders calling for *all* blocks *with becket*s will be subject to an extra charge.

Blocks with Loose Swivel Hooks.



Blocks with Loose Swivel Hooks and Becketts.



Blocks with Loose Swivel Hooks cost 3 cents net per inch each mortise more than the same size with Common Hooks, as listed on page 147.

Hooks and Straps and Iron Sheaves galvanized when required.

Special estimates and prices on Blocks for vessels' outfits given on application.

Blocks with Stiff Hooks with Mortise.

SINGLE.

No. 13. Com., see page 147.
No. 14. Pat., see page 147.

DOUBLE.

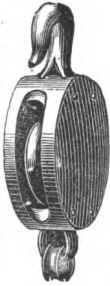
No. 15. Com., see page 147.
No. 16. Pat., see page 147.

TRIPLE.

No. 17. Com., see page 147.
No. 18. Pat., see page 147.

Blocks with Stiff Hooks and Becketts.

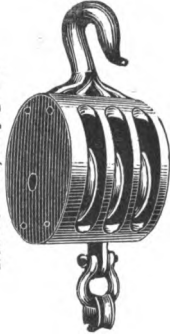
SINGLE.

No. 19. Com., see page 147.
No. 20. Pat., see page 147.

DOUBLE.

No. 21. Com., see page 147.
No. 22. Pat., see page 147.

TRIPLE.

No. 23. Com., see page 147.
No. 24. Pat., see page 147.

Peak Halliard Blocks.

Should always be Patent.

EYE FOR BAND ON GAFF.

No. 404.



FRONT HOOK.

No. 16.

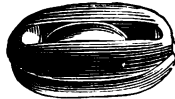


SHACKLE.

No. 400.



Bullet or Jib Sheet Blocks.

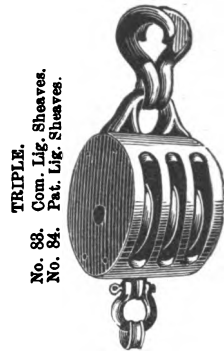
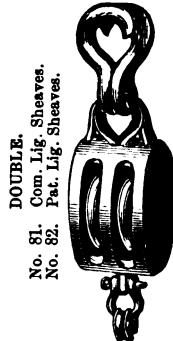
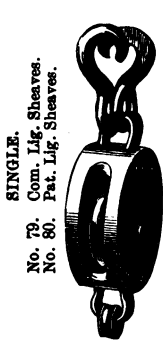
No. 189. If Lignumvitæ.
No. 189½. If Ash.

Sizes	. . .	5	6	7	8	9	10 inch.
Price	. . .	\$1.00	1.20	1.40	1.60	1.90	2.25 each.

Blocks with Match or Sister Hooks.



Blocks with Match or Sister Hooks and Becketts.



Blocks with Match Hooks cost $2\frac{1}{2}$ cents net per inch each mortise more than the same size with Common Hooks, as listed on page 147.

Wood Thole or Boat Pins.



No. 321.

Prices for Hickory and Locust given on application. State size and kind of wood.

Wood Belaying Pins.



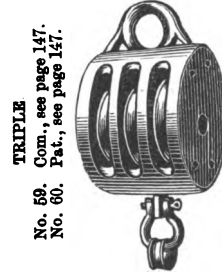
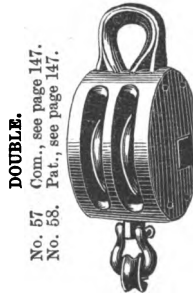
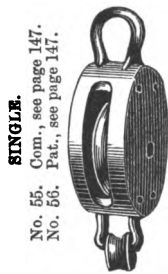
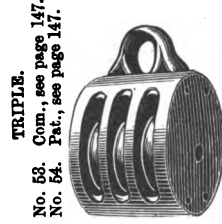
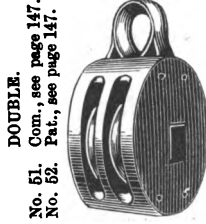
No. 322.

Hickory or Oak.

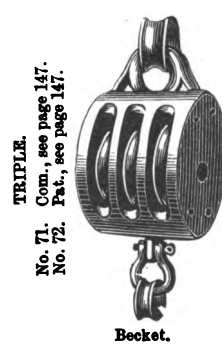
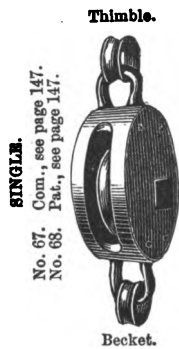
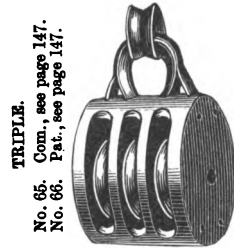
Locust.

Sizes 14 to 17 in. long $\times$ 1 in. diameter, price 65 cts. per doz. ; \$1.12 per doz.
 Sizes 16 to 18 in. long $\times$ $1\frac{1}{2}$ in. diameter, price 75 cts. per doz. ; \$1.25 per doz.
 Sizes 16 to 18 in. long $\times$ $1\frac{1}{4}$ in. diameter, price 85 cts. per doz. ; \$1.38 per doz.

Blocks with Eyes for Shackles or Lashing.



Blocks with Eyes and Thimbles for Rope Splice.



Lignumvitæ Leading Trucks.



SINGLE.
No. 810.



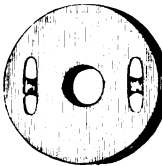
DOUBLE.
No. 811.



TRIPLE.
No. 812.

Price, 10 cents per inch.

Lignumvitæ Topmast Trucks.



2 BRASS SHEAVES.
No. 813.

1 BRASS SHEAVE.
No. 814.

2 HOLES. NO SHEAVES.
No. 815.

The above gilded to
order.

Size.	2 Holes. No. 815.	1 Brass Sheave. No. 814.	2 Brass Sheaves. No. 813.
	Each.	Each.	Each.
3½ inches.	24 cents.	\$0.55	\$0.90
4 inches.	26 cents.	.60	.95
4½ inches.	28 cents.	.65	1.00
5 inches.	35 cents.	.75	1.10
5½ inches.	40 cents.	.80	1.20
6 inches.	50 cents.	.90	1.30
6½ inches.	55 cents.	1.00	1.40
7 inches.	60 cents.	1.12	1.52

Parrel Trucks.



No. 816.
ASH.
No. 817.
LIGNUMVITÆ

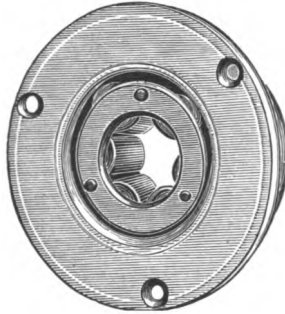
Lignumvitæ. No. 817.		Ash. No. 816.	
1 inch,	\$0.75 per doz.	2 inches,	\$0.50 per doz.
1¼ inch,	.75 per doz.	2¼ inches,	.55 per doz.
1½ inch,	.80 per doz.	2½ inches,	.60 per doz.
2 inches,	1.25 per doz.	2¾ inches,	.70 per doz.
2½ inches,	1.75 per doz.	3 inches,	.75 per doz.
		3½ inches,	1.00 per doz.

Outfits for yachts a specialty. Topmast Balls, white or gilded, with or without rods, furnished to order.

All Steel Flange Bushings.

**Cast Steel Shell (in place of the old style composition shell),
Steel Rollers and Rivets. No brass about them.**

Thus adding increased strength to this long approved principle, and affording the strongest Patent Roller Bushing made. We can insert these into the hubs of iron sheaves in the same manner we do into wood sheaves, thus affording a *cast steel* in place of a cast iron chamber for the rollers to travel in. This steel surface, not being so liable to cut and crumble as the cast iron will sometimes do, very soon becomes as smooth as glass.



No. 158.

SIZE.		Steel Rollers. Steel Shell. Turned.	Telegraph Name	SIZE.		Steel Rollers. Steel Shell. Turned.	Telegraph Name.
Hole for Pin Full Size.	Thickness or Depth.			Hole for Pin Full Size.	Thickness or Depth.		
$\frac{1}{2}$	$\frac{3}{4}$	\$.032	Taberg.	1	$1\frac{1}{2}$	\$.175	Toccoa.
	$\frac{7}{8}$	.34	Talbot.		$1\frac{5}{8}$	1.85	Toledo.
	1	.36	Tama.		$1\frac{3}{4}$	2.05	Tolono.
$\frac{5}{8}$	$\frac{7}{8}$	.46	Taylor.		$1\frac{7}{8}$	2.15	Tomah.
	$1\frac{1}{8}$	.50	Tehama.		2	2.25	Tonica.
	$1\frac{1}{4}$	.56	Temple.	$1\frac{1}{8}$	$1\frac{1}{4}$	2.10	Toons.
$\frac{3}{4}$	1	.68	Tenio.		$1\frac{3}{8}$	2.22	Topeka.
	$1\frac{1}{8}$	.75	Tensas.		$1\frac{1}{2}$	2.32	Topton.
	$1\frac{1}{4}$	.82	Terry.		$1\frac{3}{4}$	2.70	Toronto.
	$1\frac{3}{8}$	.90	Terrel.		2	3.20	Toulon.
	$1\frac{1}{2}$	.96	Thayer.	$1\frac{1}{4}$	$1\frac{3}{8}$	3.30	Towns.
$\frac{7}{8}$	1	.99	Thorold.		$1\frac{1}{2}$	3.52	Tracey.
	$1\frac{1}{8}$	1.02	Tibber.		$1\frac{3}{4}$	3.75	Traer.
	$1\frac{1}{4}$	1.09	Tiffin.		2	4.00	Trent.
	$1\frac{3}{8}$	1.15	Tilden.		$2\frac{1}{4}$	4.20	Troy.
	$1\frac{1}{2}$	1.30	Tilton.	$1\frac{1}{2}$	$1\frac{3}{4}$	5.40	Truro.
	$1\frac{5}{8}$	1.38	Tioga.		2	6.00	Tully.
1	$1\frac{3}{4}$	1.52	Tipton.		$2\frac{1}{4}$	6.50	Tunnel.
	$1\frac{7}{8}$	1.40	Tivoli.		$2\frac{1}{2}$	7.00	Turin.
	$1\frac{3}{8}$	1.55	Toano.		$2\frac{3}{4}$	7.50	Tumey.

IMPROVED

Open Gray Iron Sheaves for Rope.

Patented February 8, 1876.

For list of Iron Sheaves for our regular Blocks, see page 157.

In accordance with an old custom all our sheaves will be found a little scant in diameter, and especially all sheaves intended for use in blocks.

We are prepared to make to order the patterns and castings for any special sizes on short notice.

Our All Steel Patent Roller Bushed Sheaves are much stronger than our old style with brass rings, rivets, and rollers. No brass is used in our All Steel Roller Bushings.

Sizes under $3\frac{1}{2}$ inches are always solid. Solid sheaves $3\frac{1}{2}$ inches and larger are subject to an advance of from 10 to 20 per cent. over the price of open, according to their weight.

All sheaves have Polished Faces (or grooves). A discount will be made on quantity orders for blacked unpolished grooves.

We recommend the polished grooves, and think it will be found more economical to have us do this at the Factory, than to wait till in use, and have the rope do it as formerly.

Our patterns are made on the most approved plan, and we give groove greater depth than formerly, thus keeping the rope from flattening.

Sheaves Galvanized to Order.

Brass or Composition Sheaves to Order.

 Please note we have given each size a "Telegraph Name," both for Patent and Common (Plain) Bushed, and in ordering by wire or mail don't be afraid to use them. No two articles or kinds have the same name. Always mail us a duplicate of all orders by telegraph.

Open Gray Iron Sheaves.

DIMENSIONS.			Telegraph Name. Common.	Price. Common.	Price. Patent Steel Rollers.	Telegraph Name. Patent Steel Rollers.
Diameter.	Thickness.	Hole for Pin full size.				
Inches.	Inches.	Inches.		Each.	Each.	
2½	¾	⅜	Gilroy.	\$0.12	\$0.55	Hearne.
2¾	¾	⅜	Gilson.	.13	.58	Hebron.
	¾	⅜	Girard.	.14	.60	Helena.
	¾	⅜	Givin.	.14	.60	Heman.
	¾	⅜	Gobles.	.14	.65	Henry.
3	¾	⅜	Gonie.	.15	.60	Herman.
	¾	⅜	Gordon.	.15	.65	Hinton.
	¾	⅜	Gorham.	.17	.65	Hodges.
	¾	⅜	Gore.	.17	.70	Hokah.
	¾	⅜	Goshen.	.18	.70	Holden.
	1	½				
3½	¾	⅜	Gowen.	.18	.70	Holly.
	¾	⅜	Grant.	.19	.73	Hollis.
	¾	⅜	Gray.	.20	.75	Holt.
	¾	⅜	Greene.	.20	.73	Holton.
	1	½	Gretna.	.22	.78	Homer.
	1	½	Gridley.	.24	.86	Honey.
	1 1/8	⅜	Grove.	.24	.80	Hoodac.
	1 1/8	½	Groton.	.24	.85	Hooper.
	1	½				
3¾	1	½	Guelph.	.24	.85	Hope.
4	¾	⅜	Haddam.	.21	.80	Horton.
	¾	⅜	Hadley.	.23	.85	Howard.
	¾	⅜	Hadlon.	.23	.85	Howell.
	¾	⅜	Halls.	.23	.85	Hoyt.
	1	½	Halton.	.25	.90	Hudson.
	1	½	Hamden.	.25	.90	Hughes.
	1 1/8	⅜	Hamlet.	.26	.96	Hugo.
	1 1/8	⅜	Hanson.	.27	1.00	Hull.
	1 1/4	⅜	Harbor.	.29	1.10	Hulton.
	1 1/4	½	Harden.	.29	1.00	Humph.
	1 5/8	½				
	1	½	Hardy.	.30	.90	Hunter.
4¾	1 1/8	⅜	Harlem.	.33	1.00	Hurley.
	1 3/8	½	Harmon.	.35	1.05	Huron.

Open Gray Iron Sheaves.

DIMENSIONS.			Telegraph Name. Common.	Price. Common.	Price. Patent Steel Rollers.	Telegraph Name. Patent Steel Rollers.
Diameter.	Thickness.	Hole for Pin full size.				
Inches.	Inches.	Inches.		Each.	Each.	
4½	7⁄8	1⁄2	Iatan.	\$0.26	\$0.85	Lacon.
	7⁄8	5⁄8	Iberia.	.28	.90	Ladore.
	7⁄8	3⁄4	Ida.	.30	1.00	Lafox.
	1	5⁄8	Idaho.	.29	.95	Lagro.
	1 1⁄8	1⁄2	Illion.	.30	1.00	Lake.
	1 1⁄8	5⁄8	Imlay.	.32	1.05	Lamar.
	1 1⁄4	1⁄2	Iola.	.35	1.05	Lanark.
	1 1⁄4	5⁄8	Ionia.	.37	1.10	Laona.
5	1	1⁄2	Iowa.	.28	.95	Lapeer.
	1	5⁄8	Ira.	.30	1.00	Larned.
	1 1⁄8	1⁄2	Irving.	.30	1.00	Larose.
	1 1⁄8	5⁄8	Irwins.	.36	1.10	Larue.
	1 1⁄8	3⁄4	Islip.	.39	1.15	Laurel.
	1 3⁄8	5⁄8	Jarvis.	.38	1.14	Lawton.
	1 1⁄2	5⁄8	Jasper.	.40	1.15	Leeds.
	1 1⁄2	3⁄4	Jesup.	.43	1.19	Lee.
5½	1 7⁄8	5⁄8	Jewett.	.50	1.30	Lefroy.
	1	5⁄8	Joliet.	.35	1.15	Lehi.
	1 1⁄8	5⁄8	Joplin.	.40	1.20	Leland.
	1 1⁄4	5⁄8	Jordan.	.45	1.25	Lemars.
6	1 1⁄4	3⁄4	Joy.	.48	1.30	Lemont.
	1 1⁄8	5⁄8	Julian.	.52	1.37	Lena.
	1 1⁄4	5⁄8	Kane.	.55	1.40	Lenni.
	1 1⁄4	3⁄4	Kansas.	.58	1.45	Lenox.
	1 3⁄8	5⁄8	Kappa.	.62	1.55	Lenz.
	1 3⁄8	3⁄4	Kasson.	.65	1.60	Leon.
	1 1⁄2	5⁄8	Keene.	.65	1.60	Leroy.
	1 1⁄2	3⁄4	Kelley.	.68	1.65	Leslie.
6¼	1 5⁄8	3⁄4	Kelton.	.75	1.75	Level.
	1 3⁄4	5⁄8	Kent.	.58	1.45	Lima.
	1 7⁄8	5⁄8	Kenton.	.65	1.60	Linden.

Open Gray Iron Sheaves.

DIMENSIONS.			Telegraph Name. Common.	Price. Common.	Price. Patent Steel Rollers.	Telegraph Name. Patent Steel Roller Bushed.
Diameter.	Thickness.	Hole for Pin full size.				
Inches	Inches.	Inches.		Each.	Each.	
6½	1⅛	¾	Maccan.	\$0.60	\$1.50	Mobile.
	1¼	¾	Macon.	.65	1.60	Moirs.
	1½	¾	Madrid.	.75	1.70	Moline.
7	1⅛	¾	Malden.	.65	1.55	Mona.
	1¼	¾	Malone.	.70	1.60	Moner.
	1½	¾	Malta.	.75	1.68	Monks.
	1⅝	¾	Malton.	.80	1.75	Mono.
	1½	7⁄8	Manly.	.83	1.80	Monroe.
	1¾	7⁄8	Manito.	.88	2.00	Mooers.
	2	7⁄8	Mantua.	.95	2.40	Moran.
	2	1	Maples.	1.00	2.60	Moreau.
7½	1⅝	¾	Mara.	.85	1.85	Morgan.
	1½	¾	Marco.	.90	1.95	Morley.
	1½	7⁄8	Marcus.	.95	2.05	Moro.
	1⅝	¾	Marie.	1.00	2.05	Morris.
	1¾	7⁄8	Marion.	1.05	2.15	Morrow.
8	1¼	¾	Marlin.	.95	1.95	Morton.
	1½	¾	Marine.	1.00	2.10	Moscow.
	1½	7⁄8	Maroa.	1.05	2.15	Motley.
	1¾	¾	Martha.	1.10	2.25	Mounds.
	1¾	7⁄8	Martin.	1.15	2.35	Muir.
	1⅞	7⁄8	Mason.	1.25	2.75	Muldon.
	1⅞	1	Mazon.	1.30	3.00	Muncy.
	2	7⁄8	Mears.	1.35	3.15	Murray.
	2	1	Medina.	1.40	3.30	Napa.
	2	1½	Medon.	1.45	3.50	Napier.
	2	1¼	Mentor.	1.50	3.70	Naples.
9	1¼	¾	Mercer.	1.00	2.15	Nashua.
	1⅝	¾	Mexico.	1.15	2.30	Natick.
	1¾	¾	Miami.	1.20	3.00	Nauvoo.
	2	7⁄8	Midway.	1.50	3.50	Naylor.
	2	1	Mier.	1.55	3.60	Nebo.
	2	1¼	Milan.	1.65	4.00	Neenah.

Open Gray Iron Sheaves.

DIMENSIONS.			Telegraph Name. Common.	Price. Common.	Price. Patent Steel Rollers.	Telegraph Name. Steel Rollers
Diameter.	Thickness.	Hole for Pin full size.				
Inches.	Inches.	Inches.		Each.	Each.	
10	1½	7⁄8	Niles.	\$1.40	\$2.80	Padua.
	1¾	7⁄8	Noble.	1.60	3.20	Pajaro.
	1¾	1	Nolin.	1.65	3.40	Palmer.
	2	1	Nora.	1.80	4.00	Palo.
	2	1⅛	Normal.	1.85	4.20	Pana.
	2	1¼	Norris.	1.90	4.40	Paola.
	2¼	1½	Norton.	2.30	5.40	Papine.
11	1½	7⁄8	Norway.	1.55	3.30	Paris.
	1½	1	Novi.	1.60	3.50	Parish.
	2	1⅛	Numa.	2.10	4.75	Park.
	2	1¼	Nunda.	2.15	5.00	Parma.
12	1½	7⁄8	Nunica.	1.75	3.80	Patoka.
	1½	1	Nyack.	1.80	4.00	Payson.
	1¾	1	Oakley.	2.00	4.50	Paxton.
	1¾	1⅛	Odell.	2.05	4.75	Pearl.
	2	1	Odin.	2.25	5.00	Pekin.
	2	1¼	Ogden.	2.35	5.50	Pelton.
	2¼	1½	Ogles.	2.80	6.00	Pella.
15	1½	1	Ohio.	2.70	5.00	Penn.
	1½	1⅛	Olean.	2.75	5.25	Penola.
	1½	1¼	Olive.	2.80	5.50	Peoria.
	1⅝	1	Olney.	3.00	5.50	Peosta.
	1⅝	1⅛	Omaha.	3.05	5.75	Percy.
	1⅝	1¼	Omro.	3.10	6.00	Perlu.
	1¾	1	Onarga.	3.20	6.50	Perrin.
	1¾	1¼	Onawa.	3.30	6.75	Perry.
	1⅞	1⅛	Oneida.	3.50	7.00	Perth.
	1⅞	1¼	Orange.	3.60	7.25	Peru.
	2	1½	Oregon.	3.75	7.50	Peters.
18	1¾	1¼	Orion.	4.75	9.50	Petrol.
	2	1½	Orwell.	5.25	11.00	Pevely.

Solid Iron Sheaves for Wire Rope.

DIMENSIONS.			Telegraph Name. Common.	Price. Common.	Price. Patent Steel Rollers.	Telegraph Name. Steel Rollers.
Diameter.	Thickness.	Hole for Pin full size.				
Inches.	Inches.	Inches.		Each.	Each.	
3	$\frac{1}{2}$	$\frac{3}{8}$	Phelps.	\$0.15	\$0.60	Racine.
3	$\frac{1}{2}$	$\frac{1}{2}$	Philo.	.15	.65	Ramer.
3	$\frac{5}{8}$	$\frac{1}{2}$	Piasa.	.20	.70	Ramsey.
$3\frac{1}{2}$	$\frac{5}{8}$	$\frac{1}{2}$	Pictou.	.25	.80	Rankin.
4	$\frac{3}{4}$	$\frac{5}{8}$	Pike.	.30	1.00	Ransom.
5	$\frac{3}{4}$	$\frac{1}{2}$	Pine.	.40	1.20	Rant.
5	$\frac{7}{8}$	$\frac{5}{8}$	Pino.	.45	1.30	Rawlin.
5	$\frac{7}{8}$	$\frac{3}{4}$	Piqua.	.50	1.40	Redbuck.
$5\frac{1}{2}$	$\frac{7}{8}$	$\frac{5}{8}$	Plano.	.50	1.40	Redkey.
$5\frac{1}{2}$	$\frac{7}{8}$	$\frac{3}{4}$	Plover.	.55	1.50	Redoak.
$5\frac{1}{2}$	$\frac{7}{8}$	$\frac{5}{8}$	Polk.	.65	1.50	Reeds.
6	$\frac{7}{8}$	$\frac{5}{8}$	Polo.	.70	2.00	Relay.
6	1	$\frac{3}{4}$	Potosi.	.75	2.10	Remsen.
$6\frac{1}{2}$	1	$\frac{5}{8}$	Potter.	.75	2.10	Renick.
$7\frac{1}{2}$	1	$\frac{3}{4}$	Powell.	1.20	2.35	Reno.
8	$1\frac{1}{8}$	$\frac{7}{8}$	Powers.	1.35	2.50	Rideau.
$8\frac{1}{2}$	1	$\frac{3}{4}$	Preble.	1.35	2.50	Ridott.
$8\frac{1}{2}$	$1\frac{1}{8}$	$\frac{7}{8}$	Profile.	1.50	2.75	Rienze.
9	$1\frac{3}{8}$	$\frac{7}{8}$	Provo.	2.10	3.50	Riga.
10	1	$\frac{7}{8}$	Pueblo.	1.75	3.00	Riley.
10	1	1	Pulaski.	1.85	3.25	Rindge.
10	$1\frac{1}{4}$	1	Purdy.	2.10	3.60	Rio.
10	$1\frac{3}{8}$	$1\frac{1}{8}$	Putnam.	2.40	4.00	Ripley.
10	$1\frac{3}{8}$	$1\frac{1}{4}$	Putney.	2.50	4.25	Ripon.
12	1	1	Quaker.	2.65	4.50	Rives.
14	$1\frac{3}{8}$	$1\frac{1}{4}$	Quebec.	3.50	6.00	Rolla.
16	$1\frac{1}{2}$	$1\frac{1}{4}$	Queen.	4.50	7.50	Rudd.
18	$1\frac{3}{8}$	$1\frac{1}{4}$	Quincy.	6.00	9.50	Rome.
20	$1\frac{1}{2}$	$1\frac{1}{2}$	Quogue.	7.50	11.50	Rush.

Our Iron Sheaves for Wire Rope have same shape groove as for hemp rope, except being deeper and having stronger edges. They are solid, and heavy as compared with our open sheaves.

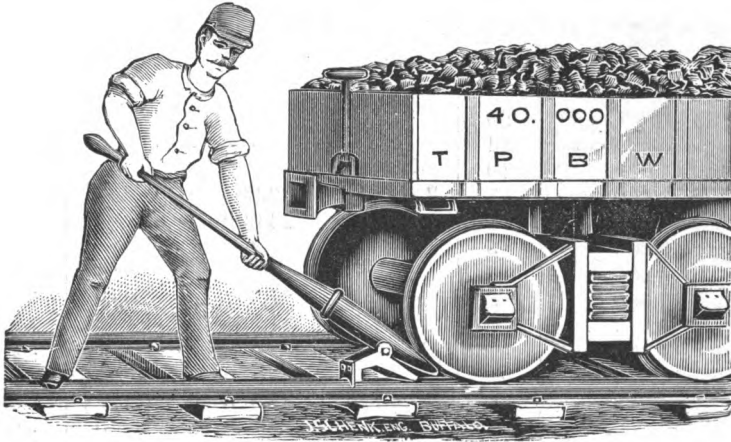
Solid Iron Sheaves for Chain.

DIMENSIONS.				Telegraph Name. Common.	Price. Common.	Price. Patent Steel Rollers.	Telegraph Name. Steel Rollers.
Diam- eter.	Thick- ness.	Hole for Pin full size.	For Chain.				
3½	1¾	½	¼ or ⅜	Sabina.	\$0.30	\$0.90	Sharon.
4	1½	⅝	⅜ or ½	Sabula.	.40	1.10	Sharps.
4½	1¾	¾	½ or ⅝	Saco.	.50	1.30	Shelby.
5	1¾	¾	½ or ⅝	Salem.	.50	1.30	Shiloh.
5½	1¾	¾	½ or ⅝	Salina.	.70	1.75	Shoals.
6	1¾	¾	½ or ⅝	Samia.	.70	1.60	Shokan.
6	1½	⅝	⅜ or ½	Saugus.	.80	1.75	Shreve.
6	1½	¾	⅜ or ½	Sardis.	.85	1.85	Sibley.
6	1¾	¾	½ or ⅝	Savage.	1.00	2.00	Sidney.
7	1¾	¾	½ or ⅝	Savona.	.80	1.75	Simcoe.
8	1½	¾	⅜ or ½	Sard.	1.20	2.50	Skiddy.
8	1½	¾	⅜ or ½	Saxton.	1.25	2.60	Sligo.
8	1¾	¾	½ or ⅝	Saylor.	1.30	2.75	Sloan.
8	1¾	1	⅜ or ½	Sayre.	1.35	2.85	Sodus.
8½	2	1	½ or ⅝	Sciota.	2.25	4.50	Solon.
9	1¾	¾	½ or ⅝	Scooba.	1.40	3.00	Sonora.
9	1½	¾	⅜ or ½	Scriba.	1.50	3.25	Spades.
9	2	1	⅜ or ½	Seale.	2.00	4.40	Spadra.
9	2	1½	⅜ or ½	Sebago.	2.10	4.75	Sparks.
10	2¼	1	½ or ⅝	Sebec.	2.85	5.60	Sparta.
10	2¼	1½	½ or ⅝	Secor.	2.95	6.00	Spring.
12	2¼	1	½ or ⅝	Sedan.	3.25	6.50	Stark.
12	2¼	1½	½ or ⅝	Seguin.	3.35	7.00	Stouts.
12	2½	1	⅝ or ¾	Selma.	3.65	7.25	Stuart.
12	2½	1½	⅝ or ¾	Seneca.	3.75	7.50	Suman.
14	2	1	⅝ or ¾	Serena.	3.85	7.50	Summit
14	2	1½	⅝ or ¾	Seward.	3.95	7.75	Sussex.

The above have a regular chain groove. Our All Steel Roller Bushings are the only Safe Patent Bushings for extra heavy work. For an extra price we can furnish Iron Sheaves with Plain Steel Bushings, or All Steel Flange Roller Bushings set into the iron hubs, same as into wood. This gives a steel shell instead of cast iron for the rollers to travel in.

The Giant Car Pusher.

Fessenden's Patent, December 31, 1878.



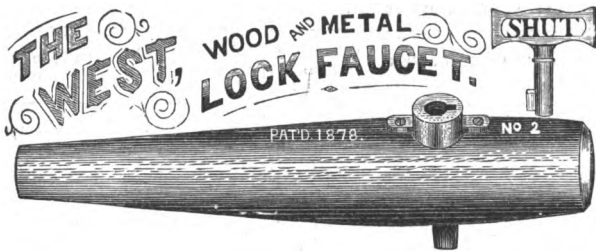
Price, \$6.25 each.

Weights only twenty-four pounds. With it one man can increase his power five times, and move twenty tons with ease.

Has an immense leverage power, and taking hold on the wheel higher up than the ordinary pinch bar, is truly a "Pusher," as no power is wasted in lifting up the wheel as is the case when a pinch bar is used.

Ice or grease on the rail does not hinder its operation, and the operator has only to start the car moving, then follow up his advantage with the Pusher till car may be placed in position.

Can be used at either end or middle of car.



Price List.

- No. 1, 7 $\frac{1}{2}$ inches long, by $\frac{3}{4}$ inch on end, \$4.00 per dozen.
- No. 2, 9 inches long, by $\frac{1}{2}$ inch on end, 4.50 per dozen.
- No. 3, 11 $\frac{1}{2}$ inches long, by $\frac{1}{2}$ inch on end, 5.00 per dozen.
- No. 4, 15 inches long, by $\frac{3}{4}$ inch on end, 6.50 per dozen.
- No. 5, 18 inches long, by $\frac{1}{2}$ inch on end, 7.50 per dozen.

Wood Body. Tinned Malleable Iron Key and Cap. Compressed Leather Lining. Composition Spigot (non-corrosive).

Key may be left in if desired, but cannot be removed except when locked.

The principle of the construction is no experiment but one old and tried, the new device being applied above the "water-mark."

Tables of Weights.

Manilla Cordage.

Strain borne by New Ropes. Pounds.	Feet in a Pound.	Size Diameter Inches.	Strain borne by New Rope. Pounds.	Feet in a Pound.	Size Diameter Inches.
For Ropes in use, deduct one third from these figures, to allow for chafing, etc.			For Ropes in use, deduct one third from these figures, to allow for chafing, etc.		
3,000	7½	¾	20,000	1½	1½
4,000	6	¾	24,000	1	1½
5,000	5	¾			
6,000	4	¾			
7,000	3¾	1	27,000	10	2
8,500	3	1½	31,500	8½	2½
9,500	2½	1½	37,000	7½	2½
11,000	2½	1½	42,500	6½	2½
12,500	2	1½	48,500	5½	2½
14,000	1¾	1½	54,500	5	2½
16,000	1½	1½	61,500	4½	3

Breaking Strain of Hooks.

We are frequently asked, "What is the breaking strain of our hooks?" We are unable to give a mathematically correct answer; but our customers will be safe in estimating them to sustain weights as follows (and we think our estimate a low one)

Hooks..... ¾ inch.	¾ inch.	1 inch.	1½ inch.	1½ inch.	1½ inch.
1,000 lbs.	2,000 lbs.	4,000 lbs.	8,000 lbs.	16,000 lbs.	20,000 lbs.

You will usually be safe in trusting the block and hook when used with their suitable size of rope as found in our list.

WEIGHT OF FLAT IRON PER FOOT.							Weight of Round Iron.		Weight of Sq. Iron.		Weight of Sheet Iron per Sq. ft.		NUMBER OF YARDS IN 63 POUNDS OF IRON WIRE.		
Size.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	In.	Lbs.	Lbs.	No.	Lbs.	No.	Length.	Breaking Weight.	
1	.83	1.25	1.66	2.08	2.50	2.91	$\frac{1}{8}$	.163	.208	5	8.74	No. 1	91 yds.	5,650	
1 $\frac{1}{8}$	1.04	1.56	2.08	2.60	3.12	3.64	$\frac{1}{4}$	.308	.468	6	8.12	No. 2	105 yds.	4,930	
1 $\frac{1}{4}$	1.25	1.87	2.50	3.12	3.75	4.37	$\frac{1}{2}$	.654	.848	7	7.50	No. 3	121 yds.	4,250	
1 $\frac{3}{8}$	1.45	2.18	2.91	3.64	4.39	5.10	$\frac{3}{8}$	1.02	1.30	8	6.86	No. 4	143 yds.	3,620	
2	1.66	2.50	3.33	4.16	5.00	5.83	$\frac{1}{2}$	1.47	1.87	9	6.24	No. 5	170 yds.	3,040	
2 $\frac{1}{8}$	2.08	3.12	4.16	5.20	6.25	7.29	$\frac{1}{2}$	2.00	2.55	10	5.62	No. 6	208 yds.	2,540	
2 $\frac{1}{4}$	2.50	3.75	5.00	6.25	7.50	8.75	$\frac{3}{4}$	2.61	3.33	11	5.00	No. 7	239 yds.	2,000	
3	2.91	4.37	5.83	7.29	8.75	10.2	1 $\frac{1}{8}$	3.81	4.21	12	4.38	No. 8	286 yds.	1,840	
3 $\frac{1}{8}$	3.33	5.00	6.66	8.32	10.00	11.6	1 $\frac{1}{4}$	4.09	5.20	14	3.12	No. 9	342 yds.	1,560	
3 $\frac{1}{4}$	3.74	5.62	7.50	9.36	11.2	13.1	1 $\frac{3}{8}$	5.89	7.50	16	2.50	No. 10	420 yds.	1,280	
4	4.16	6.25	8.32	10.4	12.5	14.5	1 $\frac{1}{2}$	8.01	10.2	18	1.86	No. 11	529 yds.	1,000	
4 $\frac{1}{8}$	4.58	6.87	9.16	11.45	13.75	15.6	1 $\frac{3}{4}$	10.4	13.3	20	1.54	No. 12	700 yds.	800	
4 $\frac{1}{4}$	5.00	7.50	10.00	12.5	15.0	17.5	2 $\frac{1}{8}$	13.2	16.8	22	1.25	No. 13	898 yds.	568	
5	5.83	8.75	11.66	14.58	17.5	20.4	2 $\frac{1}{4}$	16.3	20.8	24	1.00	No. 14	1142 yds.	456	
5 $\frac{1}{8}$	6.25	9.37	12.50	15.62	18.75	21.8	2 $\frac{1}{2}$	19.7	25.2	25	.9	No. 15	1468 yds.	452	
5 $\frac{1}{4}$	6.66	10.00	13.33	16.66	20.00	23.3	2 $\frac{3}{8}$	23.5	30.0	26	.8	No. 16	1954 yds.	284	
6	7.29	10.93	14.58	18.44	22.50	25.0	3 $\frac{1}{8}$	32.0	40.8	27	.7	No. 17	2310 yds.	160	
												No. 20	4912 yds.	104	

Adze Eye Mattocks.

AXE FINISHED.



Western Pattern.

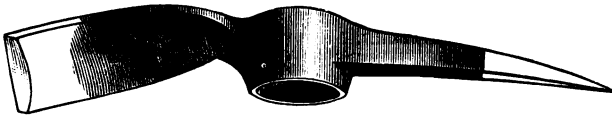
	Short Cutter.	Long Cutter.
Average weight of mattock	5 lbs.	5 lbs.
Average length and width of hoe	8×4 in.	8½×4 in.
Average length and width of cutter	4½×3½ in.	5¼×3½ in.
Price per dozen, adze eye	\$13.50	\$14.00
Price per dozen, common eye	12.00	12.50
Average weight of mattock	5½ lbs.	6 lbs.
Average length and width of hoe	8½×4½ in.	8½×4½ in.
Average length and width of cutter	4½×3½ in.	6×3½ in.
Price per dozen, adze eye	\$15.50	\$16.00
Price per dozen, common eye	14.50	15.00



Pittsburgh or Narrow Pattern.

	Short Cutter.	Long Cutter.
Average weight of mattock	5½ lbs.	6 lbs.
Average length and width of hoe	8½×3 in.	8½×3 in.
Average length and width of cutter	4½×2½ in.	6×2½ in.
Price per dozen	\$15.50	\$16.00

Adze Eye Pick Mattocks.



Average weight of mattock	5 lbs.	6 lbs.
Average length and width of hoe	8×4 in.	8½×4½ in.
Average length of pick end	8½ in.	9 in.
Price per dozen, adze eye	\$15.50	\$16.00
Price per dozen, common eye	14.50	15.00

Packed two dozen of each kind in one box.

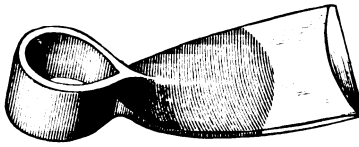
Adze Eye Grub Hoes.



AXE FINISHED OVAL EYE.

	No. 0.	No. 1.	No. 2.	No. 3.
Average weight	3 lbs.	3½ lbs.	4 lbs.	4½ lbs.
Average width of hoe	3½ in.	3¾ in.	4 in.	4½ in.
Average whole length of hoe	10¼ in.	10¾ in.	11½ in.	11¾ in.
Price per dozen	\$10.50	\$11.00	\$11.50	\$12.00

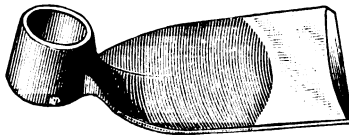
Baltimore Pattern Grub Hoes.



AXE FINISHED — COMMON OVAL EYE.

	No. 1.	No. 2.	No. 3.	No. 4.
Average weight	3½ lbs.	4½ lbs.	5 lbs.	5¾ lbs.
Average width of hoe	3¾ in.	4½ in.	5 in.	5¾ in.
Average whole length of hoe .	10¾ in.	11 in.	11½ in.	12 in.
Price per dozen	\$11.00	\$11.75	\$12.75	\$13.50

Adze Eye Sprouting Hoes.

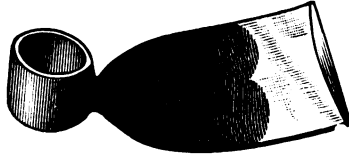


AXE FINISHED — ROUND EYE.

Average weight	3 lbs.
Average width of hoe	4½ in.
Average whole length of hoe	10¾ in.
Price per dozen	\$13.00

Packed two dozen of each kind in one box.

Adze Eye Hazel Hoes.



AXE FINISHED — ROUND EYES.

Average weight	3 lbs.
Average width of hoe	6 in.
Average whole length of hoe	10 in.
Price per dozen	\$13.00

Adze Eye Cooper Froes.



AXE FINISHED.

Steel edge, assorted	8 to 12	10 to 14 in.	12 to 16 in.
Price per dozen	\$13.00	\$13.50	\$14.00

Stone Picks.



AXE FINISHED.

Weights assorted	6 to 7 lbs.	7 to 8 lbs.	8 to 9 lbs.
Price per dozen	\$16.50	\$17.50	\$18.50

Mill Picks.



AXE FINISHED, OR PLAIN.

Solid cast steel, assorted	2 to 2½ lbs.	2½ to 3 lbs.
Price per dozen	\$20.00	\$22.00

Packed two dozen of each kind in one box.

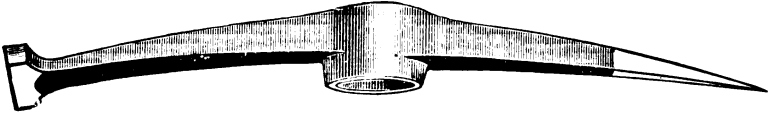
Adze Eye Railroad or Clay Picks.



AXE FINISHED.

Weights assorted . . .	4 to 5 lbs.	5 to 6 lbs.	6 to 7 lbs.	7 to 8 lbs.
Average length	23 in.	24½ in.	26 in.	28 in.
Price per dozen, adze eye . .	\$11.00	\$12.00	\$13.00	\$14.00
Price per dozen, common eye	10.00	11.00	12.00	13.00

Adze Eye Railroad Tamping Picks.



Weights assorted	to 7 lbs.	7 to 8 lbs.	8 to 9 lbs.
Average length	24 inches.	26 inches.	28 inches.
Price per dozen, adze eye . .	\$17.00	\$18.00	\$19.00
Price per dozen, common eye .	16.00	17.00	18.00

Adze Eye Coal Miner's Picks.



PLAIN OR AXE FINISHED.

	No. 1.	No. 2.	No. 3.	No. 4.
Weight	2 lbs.	2½ lbs.	3 lbs.	3½ lbs.
Length	16 in.	17½ in.	19 in.	20½ in.
Price per dozen	\$8.50	\$9.00	\$9.50	\$10.00

Coal Miner's Pick.



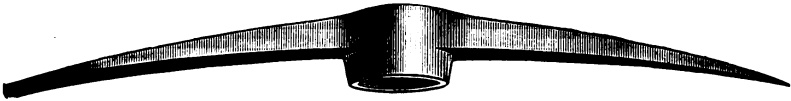
COMMON EYE.

Numbers and price the same as the adze eye.

Packed two dozen of each kind in one box.

Adze Eye California or Miners' Picks.

Surface.



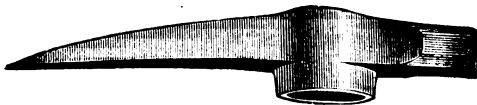
	No. 1.	No. 2	No. 3.	No. 4.	No. 5.	No. 6.	No. 7
Weights . . .	4 lbs.	4½ lbs.	5 lbs.	5½ lbs.	6 lbs.	6½ lbs.	7 lbs.
Length . . .	25 in.	26 in.	27 in.	27½ in.	28 in.	28½ in.	29 in.
Price per dozen	\$14.00	\$15.00	\$16.00	\$17.00	\$18.00	\$19.00	\$20.00

Drifting.



	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
Weight	3 lbs.	4 lbs.	4½ lbs.	5 lbs.	6 lbs.
Length	19 in.	21 in.	23 in.	25 in.	26 in.
Price per dozen	\$12.50	\$14.00	\$15.00	\$16.00	\$17.50

Poll.



	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Weight	3½ lbs.	4 lbs.	4½ lbs.	5½ lbs.	6 lbs.	6¾ lbs.
Length	13½ in.	14 in.	15 in.	17 in.	18 in.	21½ in.
Price per dozen . . .	\$15.00	\$16.00	\$17.00	\$18.50	\$20.00	\$21.50

Packed two dozen of each kind in one box.

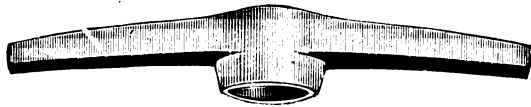
Eyes Ready for the Steel.



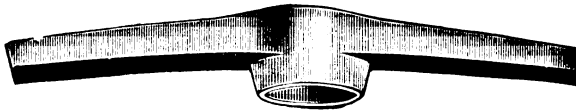
For coal picks, Nos.	1	2	3	4
Price per dozen	\$6.50	\$7.00	\$7.50	\$8.00



For drifting picks, Nos.	1	2	3	4	5
Price per dozen	\$7.50	\$8.50	\$9.00	\$9.50	\$10.50



Surface picks, Nos.	1	2	3	4	5	6	7
Price per dozen'	\$8.50	\$9.00	\$9.50	\$10.00	\$10.50	\$11.00	\$11.50



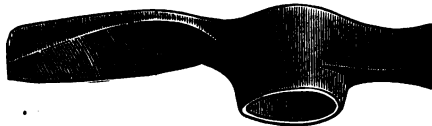
For railroad picks	4½ lbs.	5 lbs.	6 lbs.	7 lbs.	8 lbs.
Price per dozen	\$9.00	\$9.50	\$10.50	\$11.50	\$12.50
For tamping picks			6 lbs.	7 lbs.	8 lbs.
Price per dozen			\$11.00	\$12.00	\$13.00

Packed in quantities to suit.

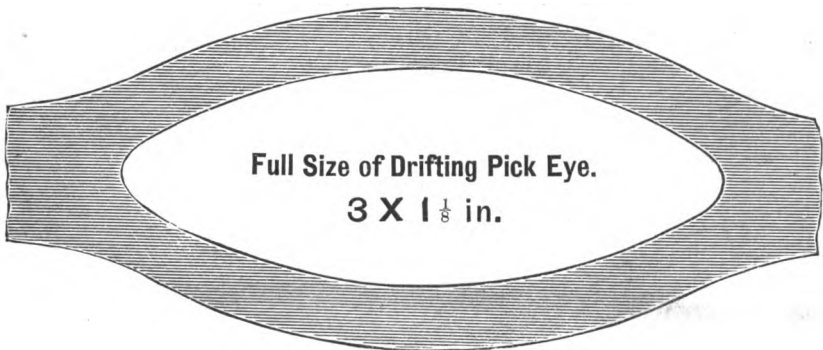
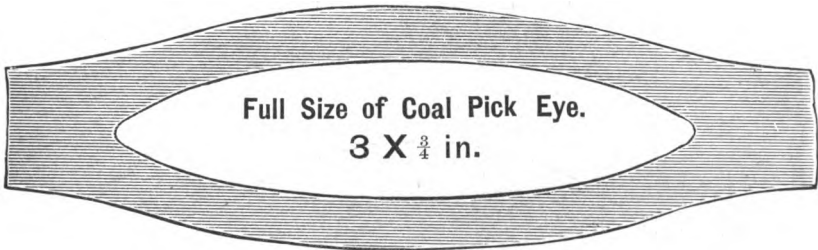
Eyes Ready for the Steel.

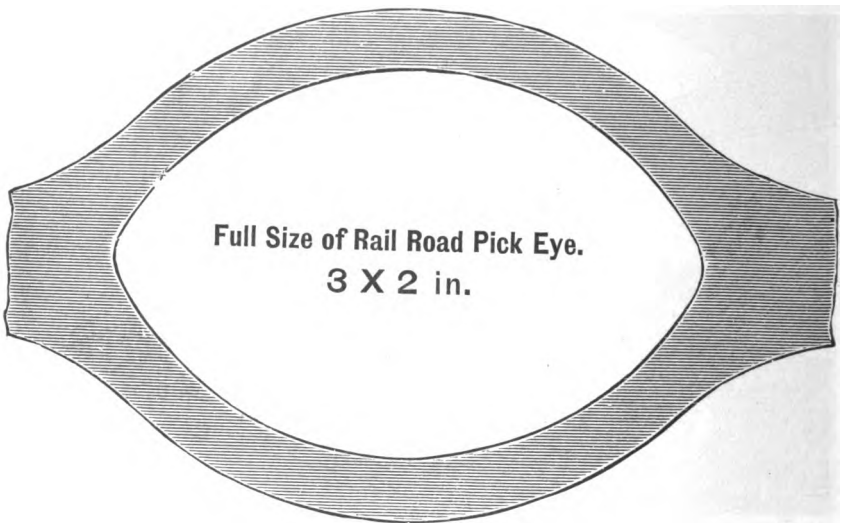
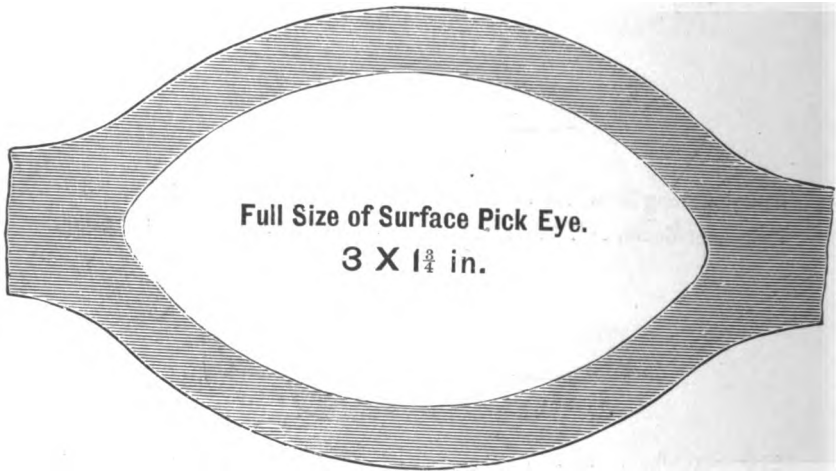


For grubbing hoes, Nos.	0	1	2	3
Price per dozen	\$7.50	\$8.00	\$8.50	\$9.00



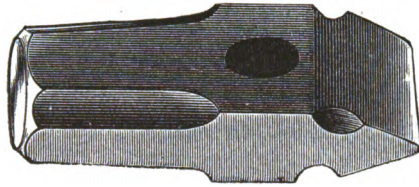
For mattocks	5½ lbs.	6 lbs.	7 lbs.
Price per dozen	\$10.00	\$10.50	\$11.50



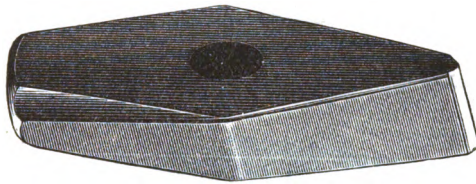


Sledges.

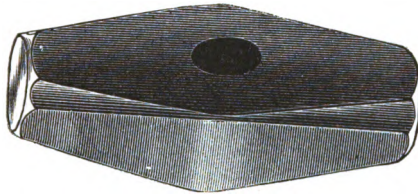
Steel Face and Peen polished.



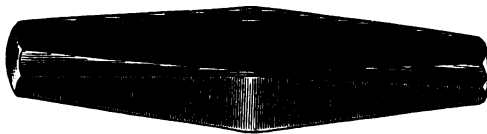
Smith sledges, 6 to 30 pounds, per pound 17 cents.



Stone sledges, 6 to 30 pounds, per pound 17 cents.



Striking sledges, 6 to 30 pounds, per pound 17 cents.

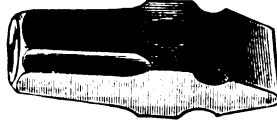


Coal sledges, 5 to 10 pounds, per pound 18 cents.

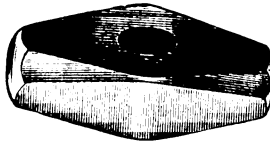
For Solid Steel Goods, see pages 198 to 203.

Hammers.

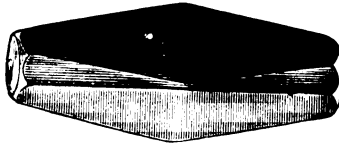
Steel Face and Peen, polished.



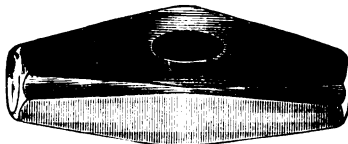
Smiths' hand, 2 to 5 pounds, per pound 26 cents.



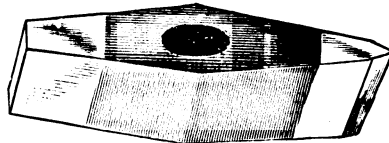
Napping, 2 to 5 pounds, per pound 26 cents.



Hand drilling, 3 to 8 pounds, per pound 20 cents.



Colorado pattern, 3 to 8 pounds, per pound 20 cents.

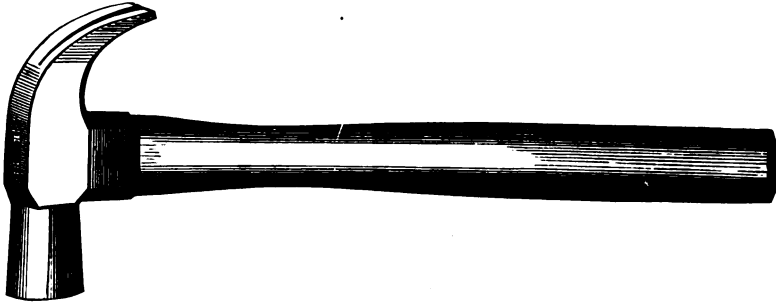


Masons', 3 to 8 pounds, per pound 26 cents.

For Solid Steel Goods, see pages 198 to 203.

Adze-Eye Nail Hammers.

Best Cast Steel.



Nos.	1	1½	2	3
Price per dozen	\$11.50	10.00	8.75	7.25
Weight	1 lb. 12 oz.	1 lb. 8 oz.	1 lb.	11 oz.

BRANDED "RELIANCE."

Solid Steel.

Nos.	1	1½	2
Price per dozen	\$10.50	9.00	8.00

Adze-Eye Bell-Face Nail Hammers.

Best Cast Steel.



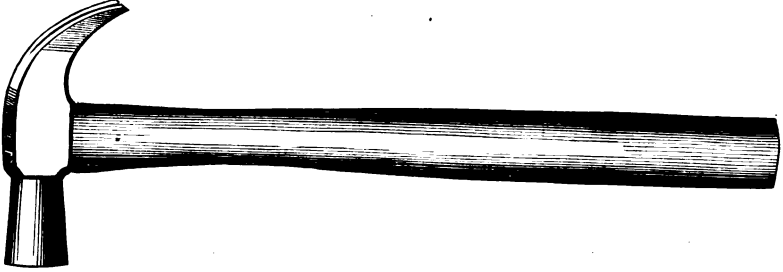
Nos.	1	1½	2
Price per dozen	\$12.50	11.00	9.75
Weight	1 lb. 10 oz.	1 lb. 6 oz.	15 oz.

Adze-Eye Converted Steel.

No. 1½, price per dozen	\$3.00
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Plain Nail Hammers.

Best Cast Steel.



Nos.	0	1	2	3	4
Price per dozen .	\$5.00	6.00	6.65	7.50	8.25
Weight	9 oz.	13 oz.	1 lb. 4 oz.	1 lb. 7 oz.	1 lb. 11 oz.

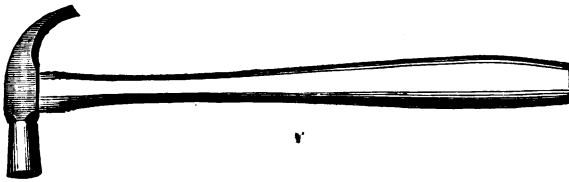
PLAIN NAIL HAMMERS. BRANDED "RELIANCE."

Solid Steel.

Nos.	02	03	04
Price per dozen	\$4.75	5.15	5.50

Plain Brad Hammers.

Best Cast Steel.



Weight	6 oz.	Price per dozen	\$4.25
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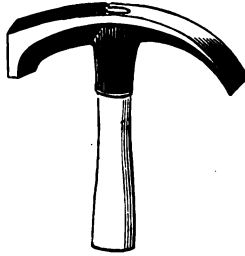
Carpet Hammers.



Weight	6 oz.	Price per dozen	\$4.25
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Coopers' Adze.

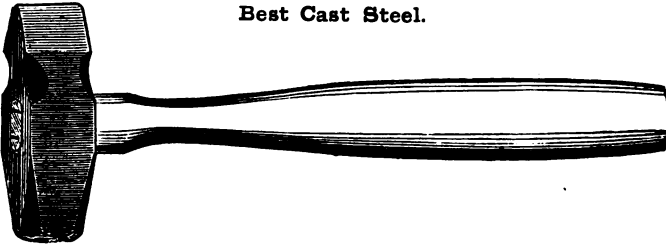
Best Cast Steel.



Nos.	1	2	3
Price per dozen	\$27.60	28.80	30.00

Coopers' Hammers.

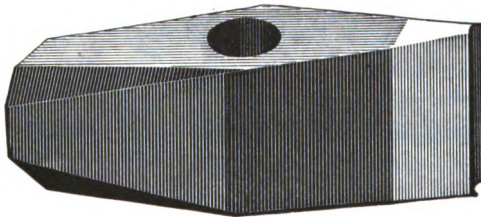
Best Cast Steel.



Nos.	3	4	5	6
Price per dozen . . .	\$14.50	16.50	19.00	22.50
Weight	3 lbs. 1 oz.	3 lbs. 6 oz.	4 lbs. 8 oz.	5 lbs. 8 oz.

Coopers' Drivers.

Best Cast Steel.



No. 1, light . . .	\$8.50 per dozen.	No. 2, heavy . . .	\$9.00 per dozen.
Weight	12 oz.	Weight	1 lb. 4 oz.

Riveting Hammers.

Best Cast Steel.



Nos.	0	1	2	3
Price per dozen	\$3.40	4.00	4.75	5.50
Weight	7 oz.	9 oz.	12 oz.	1 lb. 3 oz.
Nos.	4	5	6	7
Price per dozen	\$6.00	7.00	8.00	9.50
Weight	1 lb. 7 oz.	1 lb. 14 oz.	2 lbs. 3 oz.	2 lbs. 7 oz.

Engineers' Hammers.

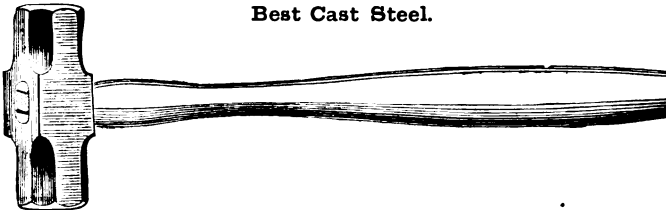
Best Cast Steel.



Nos.	0	1	2	3	4	5
Price per doz.	\$7.50	10.00	12.50	15.00	17.50	19.00
Weight	1 lb. 10 oz.	2 lbs.	2 lbs. 10 oz.	3 lbs. 8 oz.	4 lbs.	5 lbs.

Double-Face Engineers' Hammers.

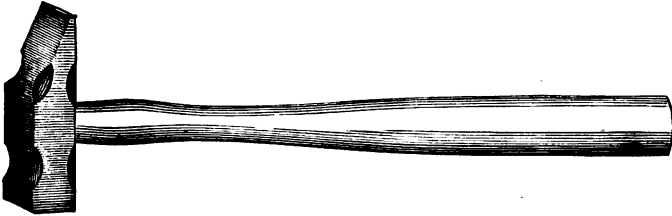
Best Cast Steel.



Nos.	1	2	3	4
Price per dozen	\$11.00	14.25	16.75	19.25
Weight	2 lbs. 7 oz.	2 lbs. 14 oz.	3 lbs. 12 oz.	4 lbs. 3 oz.

Tinners' Hammers.

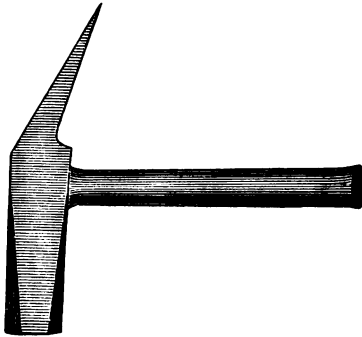
Best Cast Steel.



Price per dozen	\$9.00	8.00	7.00	6.00
Size of Steel	1 $\frac{1}{8}$	1	$\frac{7}{8}$	$\frac{3}{4}$ inch.

Bricklayers' Hammers.

Best Cast Steel.



Nos.	1	2	3
Price per dozen	\$12.00	14.00	16.00
Weight	1 lb. 8 oz.	2 lbs.	2 lbs. 8 oz.

Paving Hammers.

Best Cast Steel.

For Belgian and Cobble Stone Price \$7.00 each.

Macadamizing Hammers.

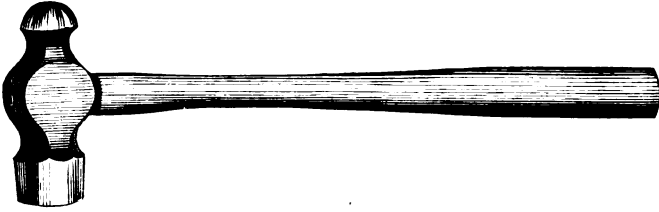
Best Cast Steel.

Weight, 2 to 5 pounds Price per pound, 50 cents.

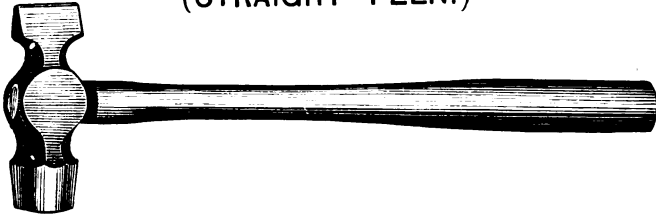
Machinists' Hammers.

Best Cast Steel.

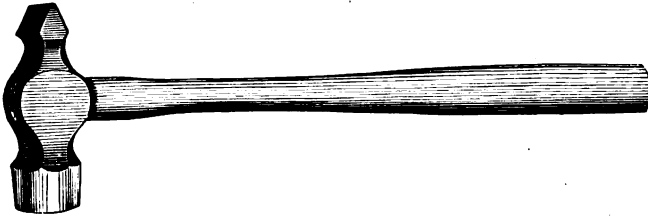
(BALL PEEN.)



(STRAIGHT PEEN.)



(CROSS PEEN.)



Nos.	$\left\{ \begin{array}{l} 0000 \text{ 8 oz.} \\ 000 \text{ 12 oz.} \\ 00 \end{array} \right.$									
		0	1	2	3					
Price per dozen .	\$11.00	13.00	14.00	16.00	18.00					
Weight	1 lb.	1 lb. 4 oz.	1 lb. 8 oz.	1 lb. 14 oz.	2 lbs. 3 oz.					
Nos.	4	5	6	7	8					
Price per dozen .	\$20.00	22.00	24.00	26.00	28.00					
Weight	2 lbs. 8 oz.	2 lbs. 12 oz.	3 lbs.	3 lbs. 5 oz.	3 lbs. 12 oz.					

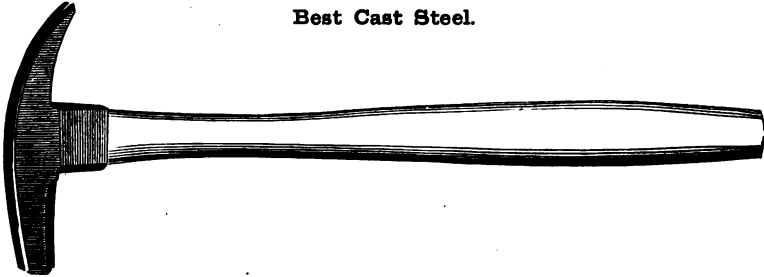
Plain Eye Farriers' Hammers.

Best Cast Steel.

Weight 9 oz. Price per dozen \$5.50

Adze-Eye Farriers' Hammers.

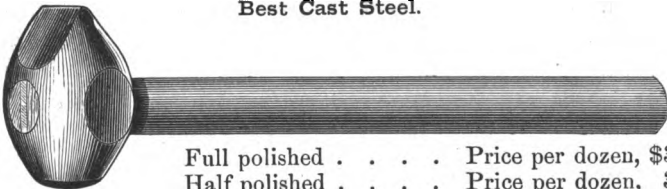
Best Cast Steel.



Weight 11 oz. Price per dozen \$7.75
 Weight 15 oz. Price per dozen 10.00

Farriers' Turning Hammers.

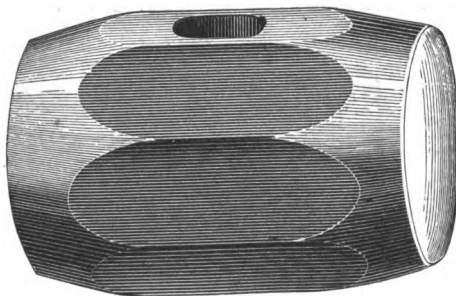
Best Cast Steel.



Full polished Price per dozen, \$33.00
 Half polished Price per dozen, 30.00
 Weight, 2 to 3 pounds.

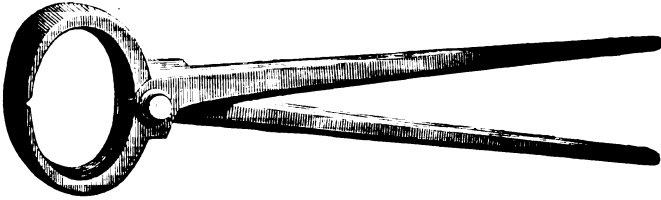
Horse-Shoe Turning Sledges.

Best Cast Steel.



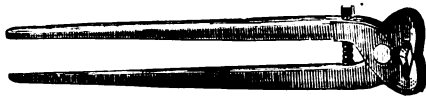
Weight 7 to 12 pounds Price per pound, 32 cents.

Farriers' Pinchers.



Price per dozen, \$12.00.

Cutting Nippers.

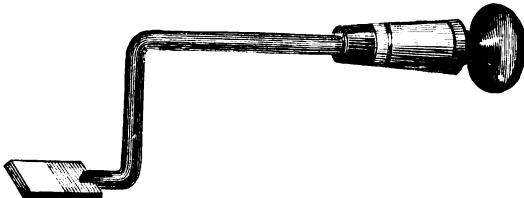


Length,	7	8	9	10	11	12	14 inch.
Price, each,	\$2.60	3.00	3.40	3.75	4.15	4.50	5.25

Farriers' Knives.

Extra	Price per dozen, \$6.00
Regular	Price per dozen, 5.00

Farriers' Buttress.



Price per dozen, \$9.50.

Boiler-Makers' Hammers.

Solid Cast Steel

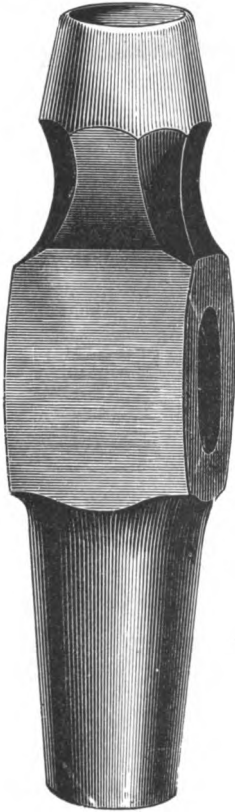


Fig. 15.

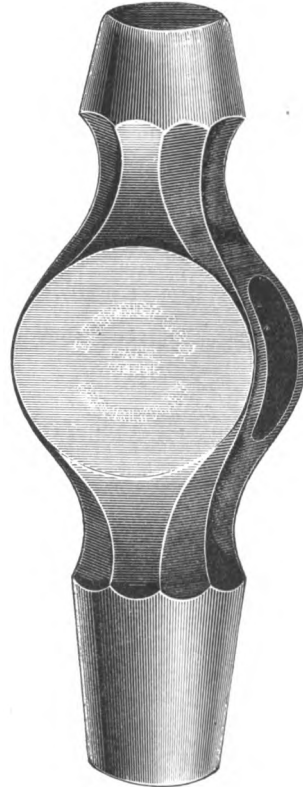
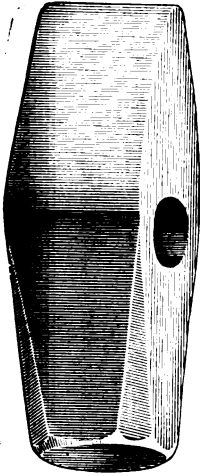


Fig. 16.

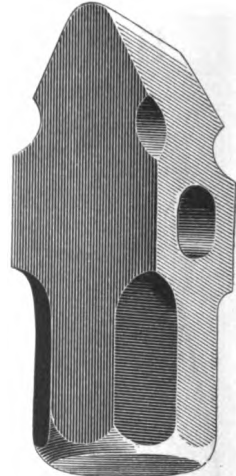
Weight, 2 to 3 pounds each Price, \$1.00 per pound.

Blacksmiths' Sledges.

Best Cast Steel.



**New England Pattern.
Straight Peen.**

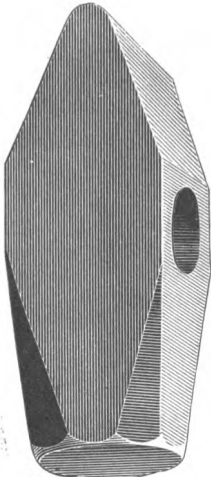


Cross or Straight Peen.

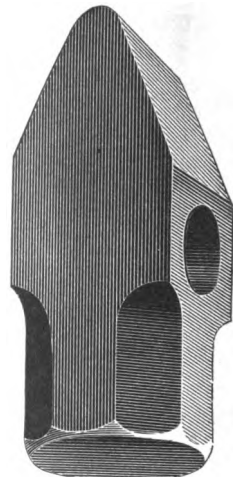
Weight, 2 to 5 pounds, 36 cts. per lb.; 6 to 18 pounds, 30 cts. per lb.

Blacksmiths' Hand Hammers.

Not Handled. Best Cast Steel.



New England Pattern.



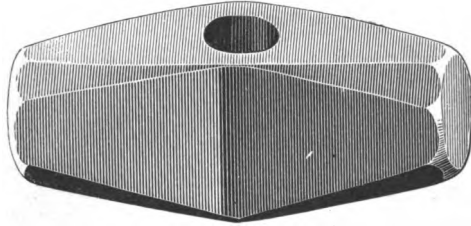
Western Pattern.

Weight, 2½ to 5 pounds Price per pound, 36 cents.

For Steel Face and Peen Hammers and Sledges, see pages 187 and 188.

Striking Hammers.

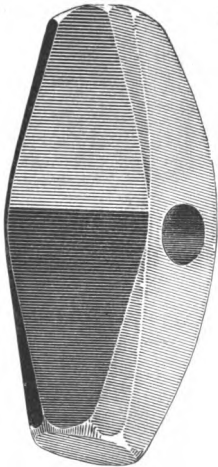
Best Cast Steel.



Weight, 5 to 18 pounds Price per pound, 30 cents.

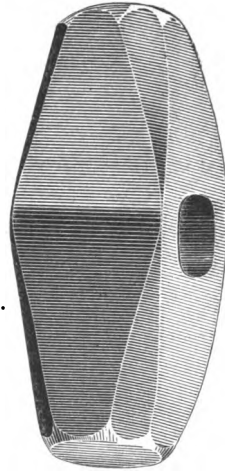
Hand Drilling or Stone Cutters' Hand Hammers.

Best Cast Steel.



Weight, 2½ to 5 lbs.

Price per lb., 36 cts.

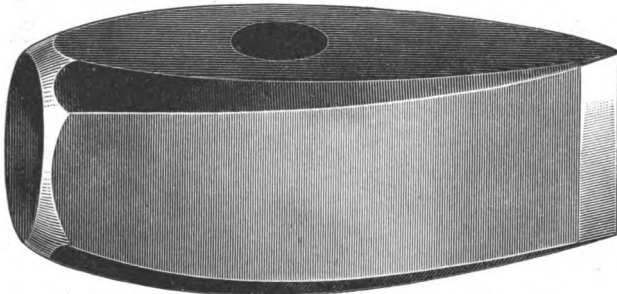


New England Pattern.

Colorado Pattern.

Stone Sledges.

Best Cast Steel.

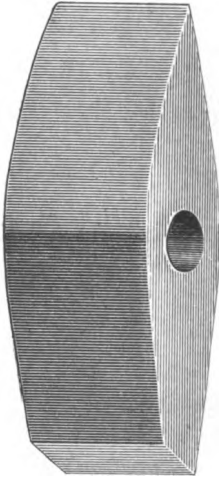


Weight, 5 to 30 pounds Price per pound, 30 cents.

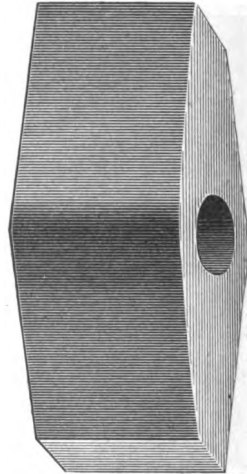
For Steel Face and Peen Hammers and Sledges, see pages 187 and 188.

Spauling or Stone Hammers.

Best Cast Steel.



Face and Peen.

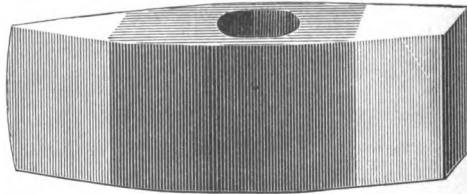


Double Face.

Weight, 2 to 5 and 5 to 25 and over 25 lbs. Price per lb., 30 cents.

Masons' Hammers.

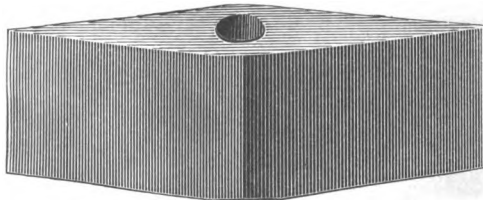
Best Cast Steel, Polished.



Weight, 2 to 5 and 5 to 25 pounds. Price per pound, 40 cents.

Stone Axes or Peen Hammers.

Best Cast Steel.

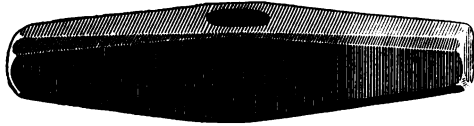


Weight, 2 to 5 and 5 to 25 pounds. Price per pound, 40 cents.

For Steel Face and Peen Hammers, see pages 187, and 188.

Coal Sledges.

Best Cast Steel.

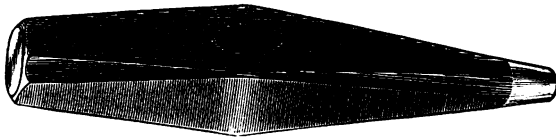


Weight 5 to 8 ponnds Price per pound, 32 cents.

For Steel Face and Peen, see page 187.

Railroad Spike Mauls.

Best Cast Steel.

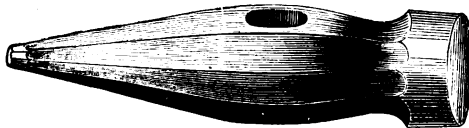


Weight 6 to 9 pounds Price per pound, 32 cents.

For Steel Face and Peen, see page 203.

Ship or Top Mauls.

Best Cast Steel.

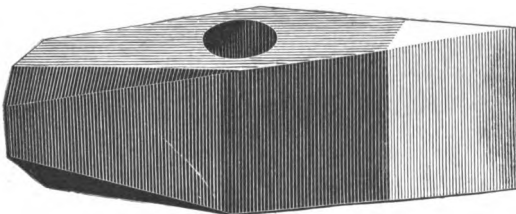


Weight 5 to 8 pounds Price per pound, 42 cents.

For Steel Face and Peen, see page 86.

Wood Choppers' Mauls.

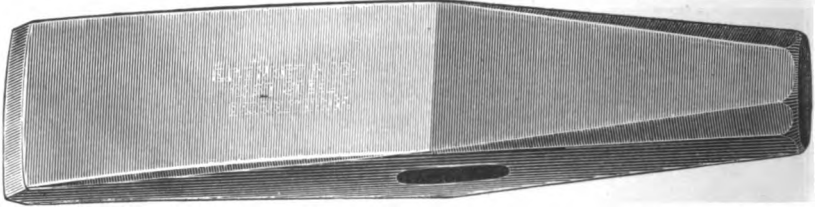
Best Cast Steel.



Weight 5 to 8 pounds Price per pound, 30 cents.

Cold Cutting Chisels.

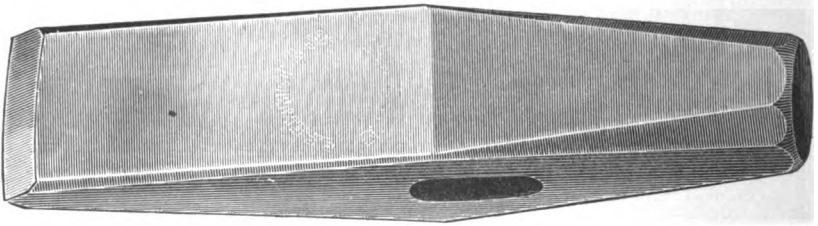
Best Cast Steel.



For Price, see page 205.

Railroad Track Chisels.

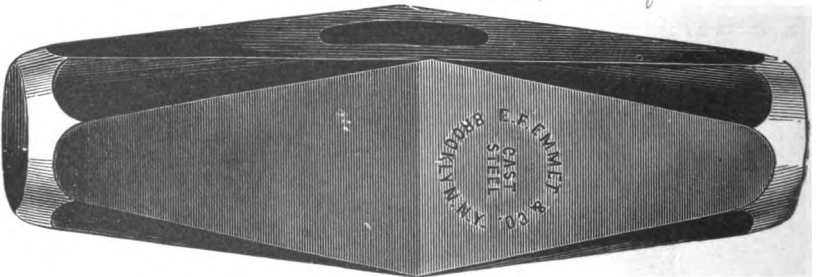
Best Cast Steel.



Weight, 2 to 4 pounds Price per pound, 40 cents.

Napping Hammers.

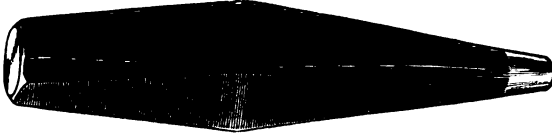
Best Cast Steel.



Weight, 2 to 5 pounds Price per pound, 36 cents.

For Steel Face and Peen, see page 188.

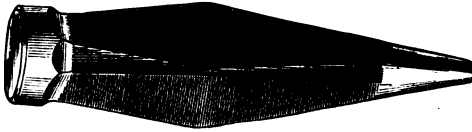
Railroad Spike Mauls.



6 to 16 pounds, per pound **Steel Face and
Peen, Polished** . 18 cents.

For Solid Steel, see page 201.

Boat or Top Mauls.



4 to 8 pounds, per pound

For solid steel, see page 201. For Steel Face and Peen, see page 86.

PATENT

Wrought Iron Garden Rakes.



No. 1, nine teeth, per dozen	\$6.50
No. 2, eleven teeth, per dozen	7.00
No. 3, thirteen teeth, per dozen	7.50

BLACKSMITHS' TOOLS.

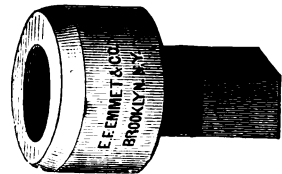
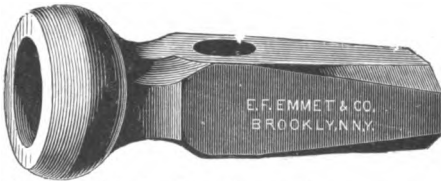
BLACKSMITHS' TONGS.



Inches	18	20	22	24	26	28	30
Price per dozen .	\$3.75	4.25	4.75	5.25	5.75	6.25	6.75

Best Cast Steel.

CUPPING TOOLS.



Cupping Tools, 3 to 6 pounds Price per pound, 50 cents.

SET HAMMER.



Price per pound, 40 cents.

HARDY.



Price per pound, 42 cents.

PUNCH.



Punches, round and square, $\frac{1}{4}$ to 2 inches. Price per pound, 50 cents.

BLACKSMITHS' TOOLS (Continued).

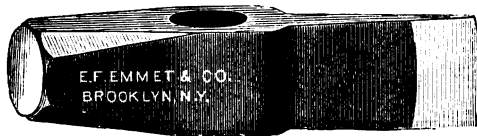
Best Cast Steel.

COUNTERSINK.



Countersinks Price per pound, 50 cents.

HOT CHISEL.



COLD CHISEL.



Hot and Cold Chisels, 2½ to 3 pounds. Price per pound, 40 cents.

CREASERS.



Creasers, 1 to 2 pounds Price per pound, 50 cents.

HEADING TOOLS.

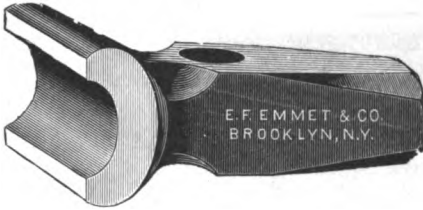


Heading Tools, round and square, ¼ to 2 inches. Price per pound, 50 cts.

BLACKSMITHS' TOOLS (Continued).

Best Cast Steel.

TOP SWAGE.

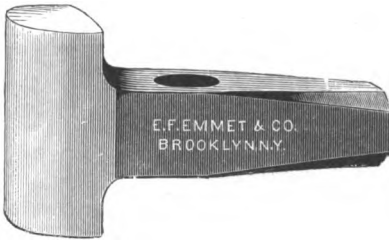


BOTTOM SWAGE.

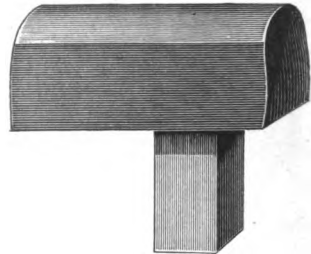


Swages, 3 to 5 pounds Price per pound, 42 cents.

TOP FULLER.

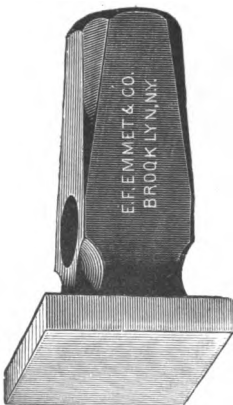


BOTTOM FULLER.

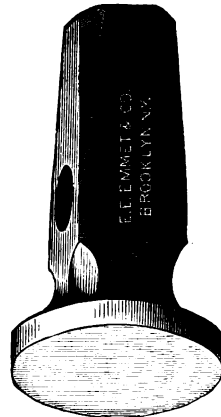


Fullers, 3 to 5 pounds Price per pound, 42 cents

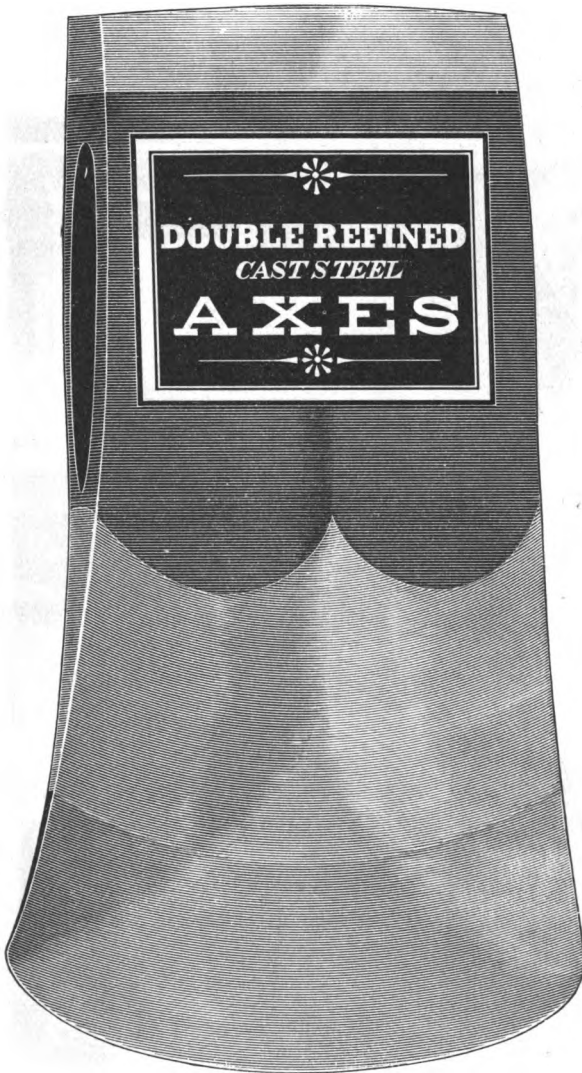
SQUARE FLATTER.



ROUND FLATTER.

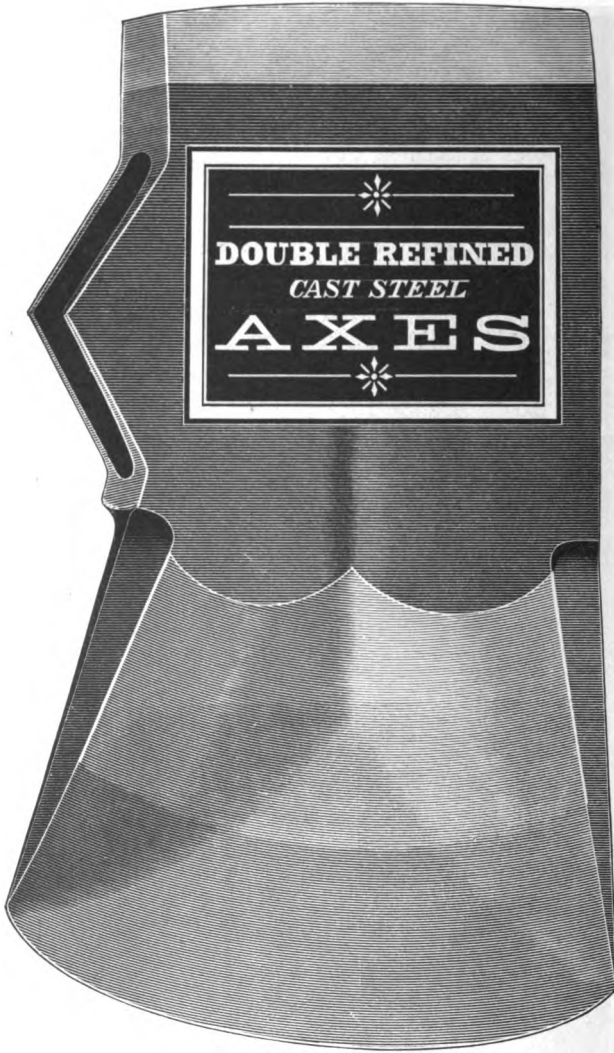


Flatters, 3 to 6 pounds Price per pound, 40 cents.

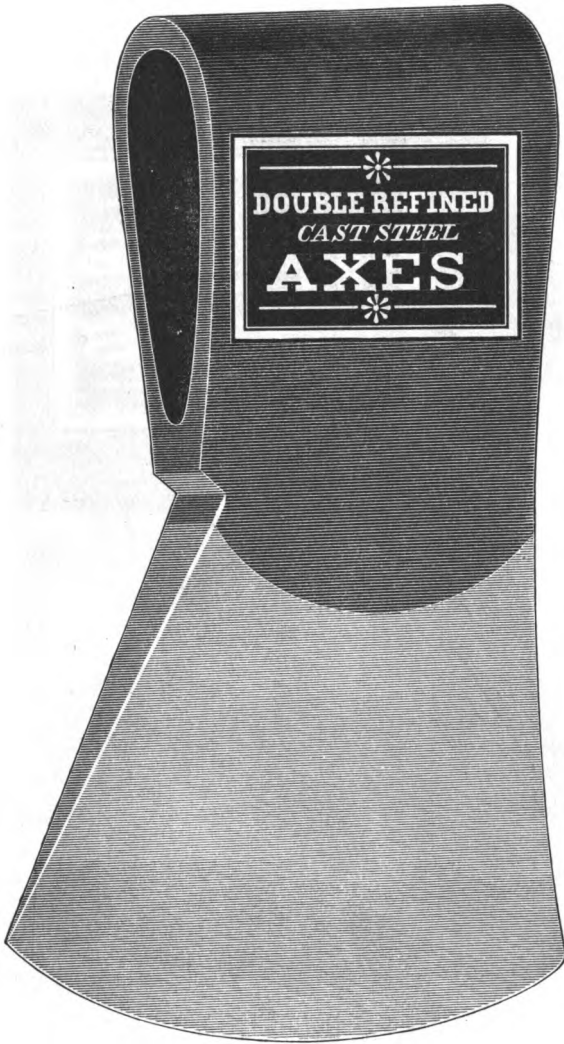


YANKEE.

Plain.



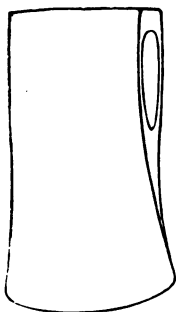
SOUTHERN KENTUCKY
Beveled.



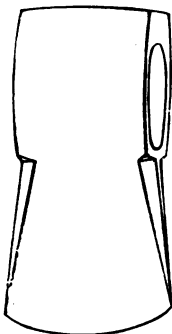
SPANISH PATTERN.
DE TUMBA.



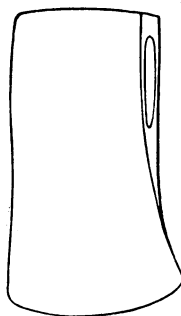
SHINGLING.



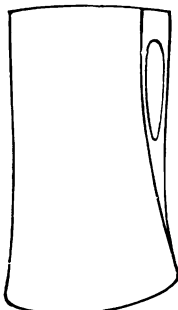
Yankee.
Plain.



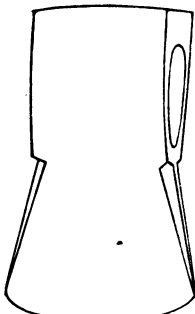
Yankee.
Bevel.



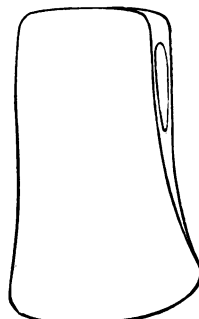
Western Crown.
Square Poll, Plain.



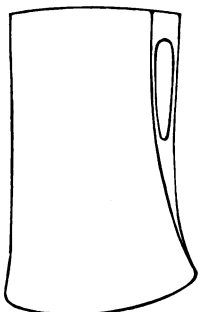
Dayton.
Plain.



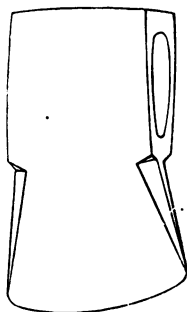
Dayton.
Bevel.



Western Crown.
Round Poll, Plain.



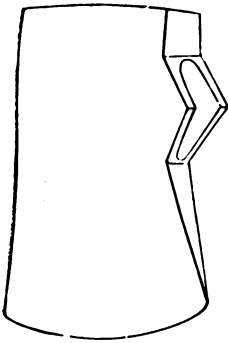
Heavy Poll Ohio.
Plain.



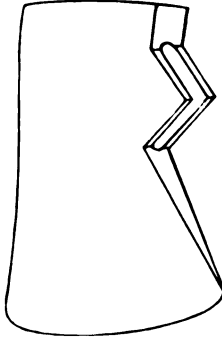
Heavy Poll Ohio.
Bevel.



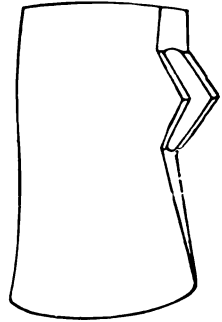
North Carolina.
Plain.



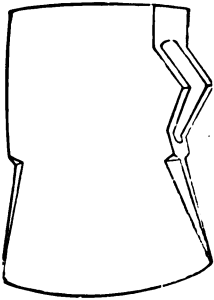
Baltimore Kentucky.
Plain.



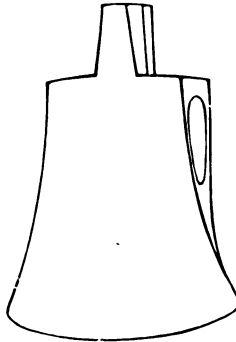
Virginia.
Plain



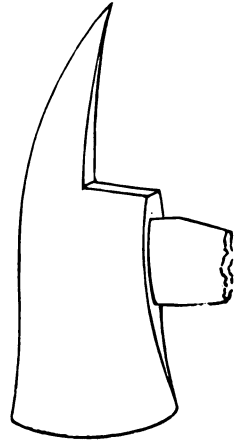
Southern Kentucky.
Plain.



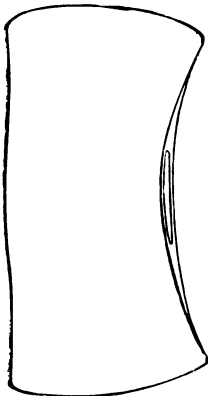
Jersey.
Bevel.



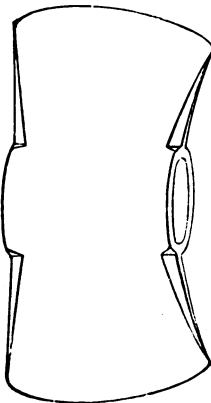
Bull Head.



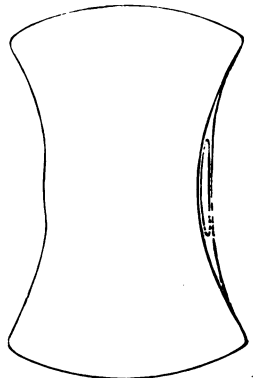
Fireman's.



Double Bitt.
Plain.

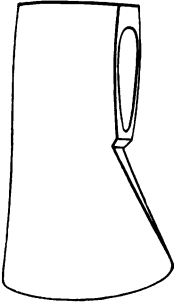


Double Bitt.
Bevel.

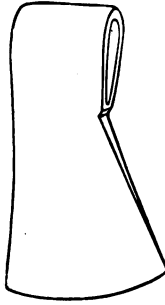


Peeling.
Plain.

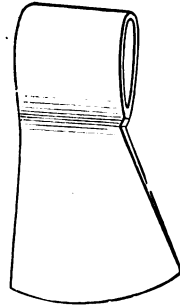
SPANISH PATTERNS.



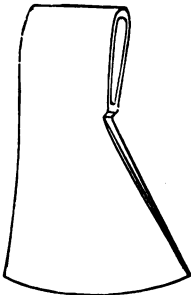
De Tumba. Flat Head.



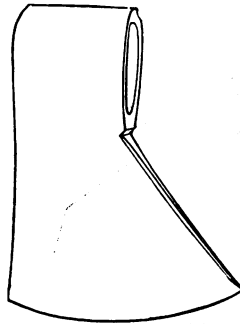
De Tumba.



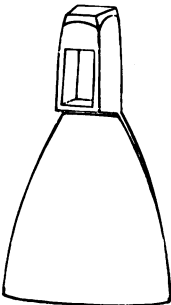
De Tumba. Round Eye.



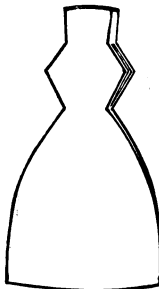
Media Labor



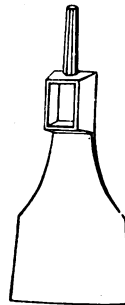
Labor Entera.



Railroad Adze.



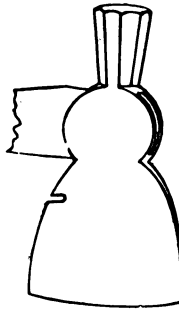
Ship Axe.



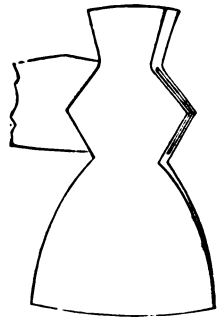
Ship Adze.



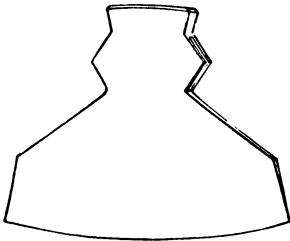
Broad Axe.
Western Pattern.



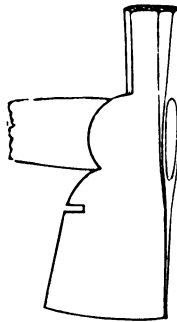
Shingling Hatchet.



Broad or Bench Hatchet.



Broad Axe.
New Orleans Pattern.



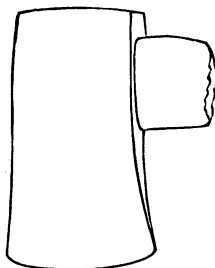
Lathing Hatchet.



Half Hatchet.



Claw Hatchet.



Boys' Axe.



Hunters' Axe.

AXES.

All Axes have Polished Heads, and are painted Gold Color unless otherwise ordered.

SINGLE BITTS.

Lippincott & Co. (Best Quality).

3 to 4,	3½ to 4½,	4 to 5,	4½ to 5½.	Price \$	per dozen.
4½ to 6,	5 to 6,	5½ to 6½.		Price \$	per dozen.

Beveled, cents per dozen additional. Full polished, \$ per dozen additional.

James & Co., Diamond Brand, \$ per dozen less than L. & Co.

DOUBLE BITTS.

Lippincott & Co.

3½ to 4½,	4 to 5,	4½ to 5½		Price \$	per dozen.
4½ to 6,	5 to 6,	5½ to 6½		Price \$	per dozen.

Beveled, \$ per dozen, additional. Full polished, \$ per dozen additional.

James & Co., Diamond Brand, \$' less than L. & Co.

Red Jacket shape, \$ per dozen more than regular shape.

Firemen's Axes, fancy paint, \$ per dozen.

SPANISH PATTERNS,

EXTRA PRICES.

Our customers will find in the preceding pages axe cuts showing the leading shapes and styles made by us. We try to keep all styles in stock, but particularly the Yankee, Dayton, Western Crown, Regular Kentucky, and Double Bitts.

Ship Axes.

Price, \$30.00 per dozen.

Railroad Adzes.

Price, \$26.00 per dozen.

Ship Adzes.

Price, \$26.00 per dozen.

Broad Axes.

Western Pattern.

New Orleans Pattern.

Pittsburg Pattern.

Price, \$32.00 per dozen.

Shingling Hatchets, Handled.

Numbers,	1	2	3
Best quality, price,	\$7.50	8.00	8.50 per dozen.
Reliance quality, price,	6.00	6.50	7.00 per dozen.

Broad, or Bench Hatchets, Handled.

Numbers,	2	3	4	5	6	7
Cut,	4½	5	5½	6	6½	7 inch.
Price,	\$12.60	13.25	14.50	17.00	19.25	23.00 per dozen.

 For various styles, see cuts on preceding pages.

Lathing Hatchets, Handled.

Numbers,	1	2	3
Best quality, price,	\$7.50	8.00	8.50 per dozen.
Reliance quality, price,	6.00	6.50	7.00 per dozen.

Half Hatchets, Handled.

Numbers,	1	2	3
Best quality, price,	\$7.50	8.00	8.50 per dozen.
Reliance quality, price,	6.00	6.50	7.00 per dozen.

Claw Hatchets, Handled.

Numbers,	1	2	3
Best quality, price	\$8.00	8.50	9.00 per dozen.
Reliance quality, price	7.00	7.50	8.00 per dozen.

Boys' Axes, Handled.

Numbers,	2	3
Best quality, price,	\$11.50	\$12.50 per dozen.
Reliance quality, price,	10.50	11.50 per dozen.

Hunters' Axes, Handled.

Best quality	Price, \$9.00 per dozen.
Reliance quality	Price, 8.00 per dozen.

 *For various styles, see cuts on preceding pages.*

SAWS.

Terms of Warranty.

Each Saw is warranted perfectly true, or as true as it is possible to make it, and free from flaws and seams; and if found to be defective in either of these particulars, a new one will be given in exchange, if returned within a reasonable time.

The practice of using a cold chisel or punch for re-toothings a Saw is almost certain to distort or crack the plate, and corners filed square in the gullet of the Tooth will frequently produce the same result particularly in frosty weather.

Our warranty does not cover Saws breaking from either of the above causes.

Our Standard Gauge Exactly Corresponds with the STUBBS English Gauge.

Gauge No. 4, $\frac{1}{4}$ inch scant.	Gauge No. 9, $\frac{5}{8}$ inch scant.
Gauge No. 5, $\frac{7}{8}$ inch scant.	Gauge No. 10, $\frac{1}{2}$ inch full.
Gauge No. 6, $\frac{3}{4}$ inch full.	Gauge No. 11, $\frac{1}{8}$ inch scant.
Gauge No. 7, $\frac{1}{8}$ inch scant.	Gauge No. 12, $\frac{3}{4}$ inch full.
Gauge No. 8, $\frac{5}{8}$ inch scant.	

Special Notices.

When an order has been given and the same accepted by us, it is not subject to countermand at the option of the buyer.

Goods made to order which are not of regular manufacture and style, are made without any warrant, and always at the risk of the party ordering.

Patent handles having come into general use, we do not ship Tangs with Cross-Cut Saws, unless ordered.

Breakage in repairing at the owner's risk.

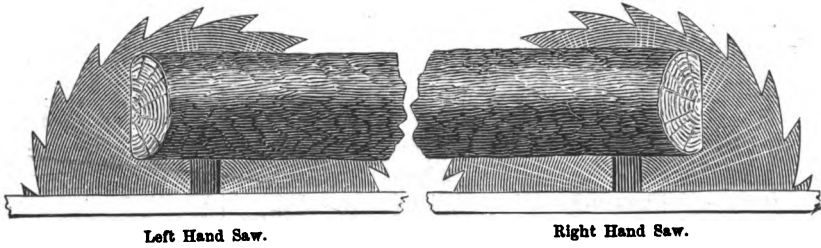
Repairs are always cash on delivery.

All goods shipped at buyer's risk.

N. B. — In ordering Saws, be careful to give the following particulars:

Send a draft of the exact size of the eye, and pin holes (if any). Also, *be sure* to give the *log side* of the saw, standing in front of the saw, with it cutting toward you. State whether the log is at the right or left hand. Give the amount of feed to each revolution, and about the number of revolutions the saw makes per minute, working at its speed. Mention what kind of lumber you wish to saw.

Form of Order for Circular Saws.



Please send..... Circular Saws, as follows:—

Diameter of Saw..... inches.
 Mandrel Hole.inches.
 Pin Holes, how many.....
 Size of Pin Holes.....inches.
 Distance apart of Pin Holes from centre to centre.....
 Gauge of Saw at centre, No.....
 Gauge of Saw at rim, No.....
 Teeth, how many?.....
 Right or Left Hand..... (See Cut above.)
 Kind of Timber to be sawed.....
 Largest Feed to each revolution of Saw.....inches.
 Speed of Saw, about..... revolutions per minute.
 How to be shipped, by R. R., Express or River.....

To.....

.....

N. B.—This form is for Solid Saws; if Inserted Teeth are wanted please also fill these blanks:

With..... No..... Teeth in the Saw.
 With..... extra set of Teeth.

Blanks similar to this furnished on application.

Solid Circular Saws.

Patent Ground and Patent Temper.

Of Extra Quality, Superior Workmanship, and Guaranteed as per Warranty.

Diameter.	Thickness.	Size of Hole.	Price. Each.	Extra for each additional Gauge (heavier).	Prices for Beveling New Saws (Grinding or Beveling Old Saws, extra).
4 inch.	19 gauge.	$\frac{3}{4}$	\$0.85	\$0.06	
5 inch.	19 gauge.	$\frac{1}{2}$	1.00	.07	
6 inch.	18 gauge.	$\frac{1}{2}$	1.25	.09	
7 inch.	18 gauge.	$\frac{3}{4}$	1.50	.10	
8 inch.	18 gauge.	$\frac{1}{2}$	1.75	.11	
9 inch.	17 gauge.	$\frac{7}{8}$	2.25	.14	
10 inch.	16 gauge.	1	2.75	.16	
12 inch.	15 gauge.	1	3.50	.20	\$0.50 per gauge.
14 inch.	14 gauge.	$1\frac{1}{8}$	4.00	.24	.60 per gauge.
16 inch.	14 gauge.	$1\frac{1}{8}$	4.75	.28	.70 per gauge.
18 inch.	13 gauge.	$1\frac{1}{4}$	5.50	.34	.80 per gauge.
20 inch.	13 gauge.	$1\frac{5}{8}$	7.00	.40	.90 per gauge.
22 inch.	12 gauge.	$1\frac{7}{8}$	8.00	.48	1.00 per gauge.
24 inch.	11 gauge.	$1\frac{3}{4}$	10.00	.55	1.20 per gauge.
26 inch.	11 gauge.	$1\frac{3}{4}$	12.00	.65	1.40 per gauge.
28 inch.	10 gauge.	$1\frac{1}{2}$	14.00	.80	1.60 per gauge.
30 inch.	10 gauge.	$1\frac{1}{2}$	16.00	.90	1.80 per gauge.
32 inch.	10 gauge.	$1\frac{1}{4}$	18.50	1.00	2.00 per gauge.
34 inch.	9 gauge.	$1\frac{1}{8}$	21.00	1.20	2.20 per gauge.
36 inch.	9 gauge.	$1\frac{1}{8}$	24.00	1.40	2.40 per gauge.
38 inch.	8 gauge.	$1\frac{1}{8}$	28.00	1.75	2.60 per gauge.
40 inch.	8 gauge.	2	33.00	2.00	3.00 per gauge.
42 inch.	8 gauge.	2	40.00	2.50	3.50 per gauge.
44 inch.	7 gauge.	2	48.00	3.00	3.70 per gauge.
46 inch.	6 gauge.	2	56.00	3.50	3.80 per gauge.
48 inch.	6 gauge.	2	65.00	4.25	4.00 per gauge.
50 inch.	6 gauge.	2	75.00	5.00	4.20 per gauge.
52 inch.	5 gauge.	2	90.00	5.75	4.80 per gauge.
54 inch.	5 gauge.	2	105.00	7.00	4.50 per gauge.
56 inch.	5 gauge.	2	125.00	8.75	4.70 per gauge.
58 inch.	5 gauge.	2	150.00	10.00	4.80 per gauge.
60 inch.	5 gauge.	2	175.00	12.00	5.00 per gauge.
62 inch.	4 gauge.	2	200.00	14.00	5.20 per gauge.
64 inch.	4 gauge.	2	230.00	16.00	5.40 per gauge.
66 inch.	4 gauge.	2	265.00	18.00	5.50 per gauge.
68 inch.	4 gauge.	2	300.00	20.00	5.70 per gauge.
70 inch.	3 gauge.	2	340.00	22.00	5.90 per gauge.
72 inch.	3 gauge.	2	380.00	24.00	6.00 per gauge.

Extra Thin Saws, also Grooving Saws, special prices.
Circular Saws, to cut Metal or Ivory, double price.

TOP CIRCULAR SAWS FOR DOUBLE MILLS.**Patent Temper, Patent Ground.**

24 in. 26 in. 28 in. 30 in. 32 in. 34 in. 36 in. diameter.
 Price, \$13.00 15.00 18.00 21.00 24.00 27.00 31.00 each.

Particular Attention paid to Manufacturing Swaged and Beveled Circular Saws, for Shingles, etc.

Warranted Extra Cast Steel Shingle Saws.**TAPERED TO NO. 14 GAUGE.****Patent Temper, Patent Ground.**

32 34 36 38 40 42 44 46 48 inches.
 Price, \$26 31 36 43 50 60 72 85 100 each.

NEW INSERTED TEETH SAW.**PRICE LIST OF CIRCULAR SAWS.****With Movable Flange Teeth.***Saws with No. 1 and No. 2 Teeth for Sawing Logs and Timber.***Price List of Saws with Inserted Teeth.**

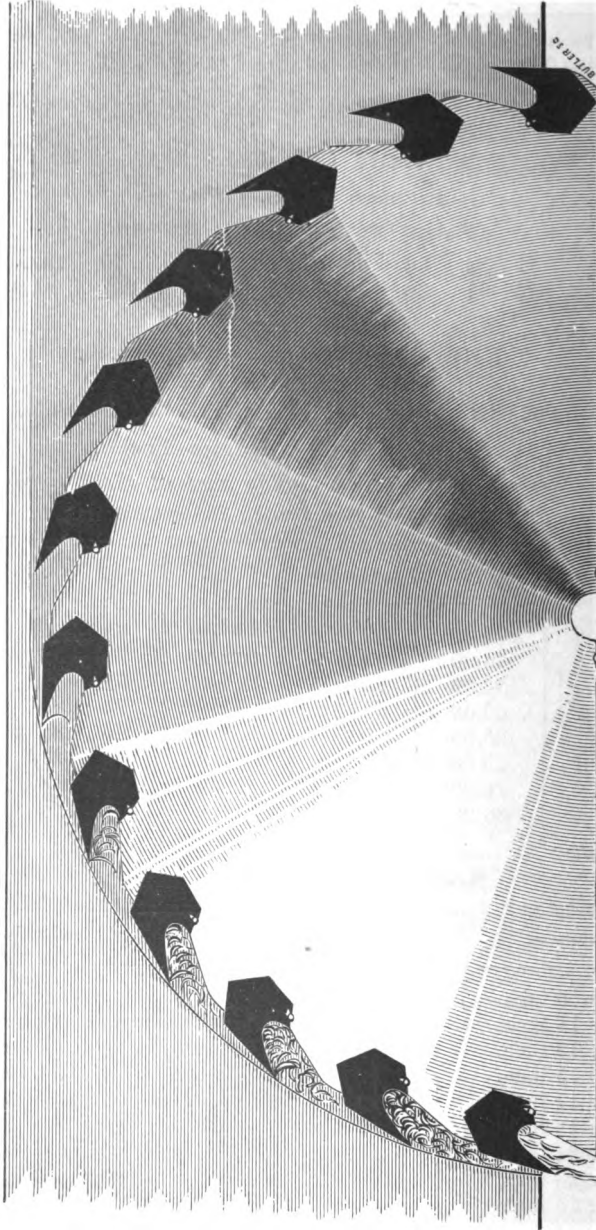
All Gauges.	Price.	All Gauges.	Price.	All Gauges.	Price.
36 to 9	\$43.00	52 to 6	\$90.00	68 to 4	\$300.00
38 to 8	48.00	54 to 5	105.00	70 to 4	340.00
40 to 8	54.00	56 to 5	125.00	72 to 4	380.00
42 to 7	60.00	58 to 5	150.00	74 to 4	420.00
44 to 7	65.00	60 to 4	175.00	76 to 4	460.00
46 to 7	70.00	62 to 4	200.00	78 to 3	500.00
48 to 6	76.00	64 to 4	230.00		
50 to 6	83.00	66 to 4	265.00		

Saws with No. 3 and No. 4 Teeth.

Diameter.	All Gauges to	Price.	Each additional Gauge.
8 or 9 inch.	13	\$7.50	\$0.18 extra net.
10 or 11 inch.	13	8.25	.20 extra net.
12 or 13 inch.	12	9.00	.25 extra net.
14 or 15 inch.	12	10.12	.30 extra net.
16 or 17 inch.	12	11.25	.35 extra net.
18 or 19 inch.	12	12.50	.40 extra net.
20 or 21 inch.	10	16.50	.47 extra net.
22 or 23 inch.	10	19.50	.55 extra net.
24 or 25 inch.	10	24.00	.63 extra net.

INSERTED TEETH SAWS.

SECTION OF INSERTED FLANGE TOOTHED SAW IN THE CUT.



Over Five Hundred of these Saws now in use.

Saws with No. 3 and No. 4 Teeth — Continued.

Diameter.	All Gauges to	Price.	Each additional Gauge.
26 or 27 inch.	10	\$27.00	\$0.85 extra net.
28 or 29 inch.	9	30.75	.87 extra net.
30 inches.	9	34.75	1.00 extra net.
32 inches.	9	38.25	1.25 extra net.
34 inches.	9	42.00	1.50 extra net.
36 inches.	9	46.50	1.80 extra net.
38 inches.	8	51.00	2.15 extra net.
40 inches.	8	56.75	2.50 extra net.
42 inches.	7	63.75	3.00 extra net.

TAPER GROUND.*For Sawing Shingles, Heading, and other thin Lumber.***Patent Flanged Toothed Saws.**

Diameter.	Price.	
20 or 21 inches,	\$21.00	} 11 or 12 gauge at centre, ground not exceeding 3 gauges thinner at rim.
22 or 23 inches,	24.00	
24 or 25 inches,	28.00	
26 or 27 inches,	32.00	
28 or 29 inches,	35.00	} 10 or 11 gauge at centre, ground not exceeding 4 gauges thinner at rim.
30 or 31 inches,	39.00	
32 or 33 inches,	43.00	
34 or 35 inches,	47.00	
36 or 37 inches,	51.00	} 9 or 10 gauge at centre, ground not exceeding 5 gauges thinner at rim.
38 or 39 inches,	57.00	
40 or 41 inches,	64.00	} 8 or 9 gauge at centre, ground not exceeding 5 gauges thinner at rim.
42 or 43 inches,	74.00	
44 or 45 inches,	85.00	} 7 or 8 gauge at centre, ground not exceeding 6 gauges thinner at rim.
46 or 47 inches,	98.00	
48 or 49 inches,	111.00	} 6 or 7 gauge at centre, ground not exceeding 6 gauges thinner at rim.
50 or 51 inches,	126.00	

GUN METAL COLLARS, attached to Saws with Screws, 75 cents per inch in diameter.

PATENT INSERTABLE FLANGE TEETH.

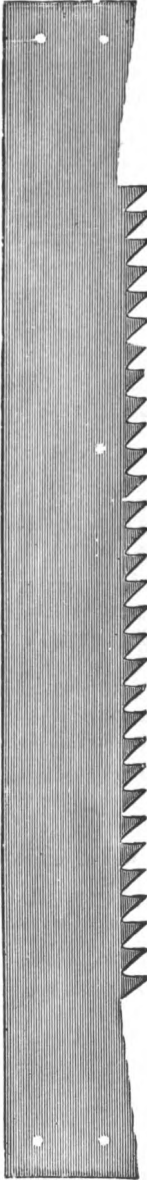
No. 1. — Price, 60 cents each.

No. 2. — Price, 50 cents each.

No. 3. — Price, 35 cents each.

No. 4. — Price, 25 cents each. Used for all bench Saws.

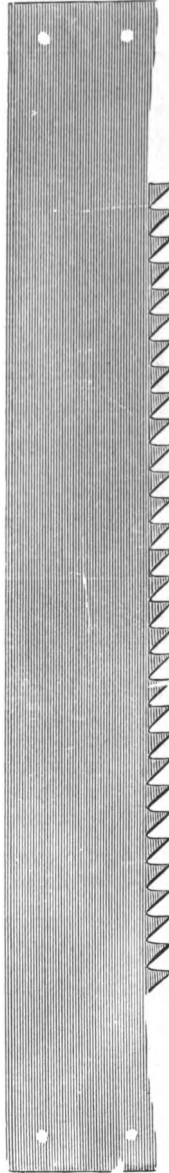
Shingle Saws, Siding, Heading, and all fine work.



HUBBARD, BAKEWELL & CO. WARRANTED CAST STEEL MILL SAWS.

Extra Tempered. Patent Ground. Eight inches wide.

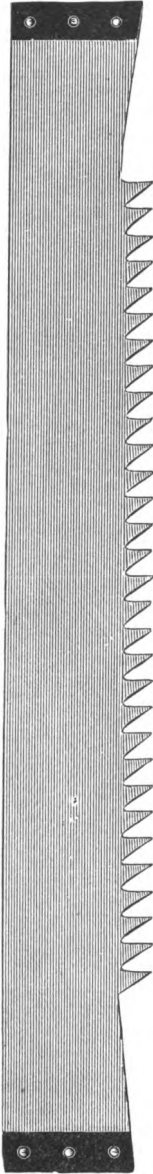
No. 5 Gauge, \$1.60 per foot.	No. 7 Gauge, \$1.40 per foot.	No. 9 Gauge, \$1.20 per foot.
No. 6 Gauge, 1.50 per foot.	No. 8 Gauge, 1.30 per foot.	



HUBBARD, BAKEWELL & CO. WARRANTED CAST STEEL MULAY MILL SAWS.

MULAY SAWS, 14 inches wide, made to order

	4 Gauge.	5 Gauge.	6 Gauge.	7 Gauge.	8 Gauge.
10 inches wide.....	\$2.50	\$2.30	\$2.10	\$1.90	\$1.70
11 inches wide.....	2.70	2.50	2.30	2.10	1.90
12 inches wide.....	2.80	2.70	2.50	2.30	2.10

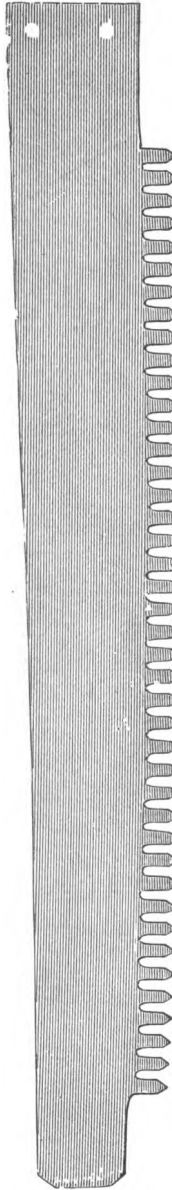


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HUBBARD, BAKEWELL & CO. WARRANTED EXTRA CAST STEEL GANG SAWS.

Extra Tempered. Patent Ground.

Nos. 10, 11, and 12 Gauge, 8 inches wide.....per foot, \$1.10
 Nos. 13, 14, 15, and 16 Gauge, 8 inches wide.....per foot, 1.20
 Each additional in width, inch, per foot, 15 cents extra.



HUBBARD, BAKEWELL & CO. WARRANTED EXTRA CAST STEEL DRAG SAWS.

Extra Tempered. Patent Ground

Tapered, 7 inch butt, 5 inch point, No. 10 Gauge, plain.....per foot, \$1.10
 Tapered, 8 inch butt, 6 inch point, No. 10 Gauge, plain.....per foot, 1.20
 Equal width, 8 inches, No. 10 Gauge, plain.....per foot, 1.30
 Patent or Improved Teeth, 10 cents per foot extra. If set and sharpened, extra price.

 *In ordering Drag Saws, state whether Mill Saw or Cross-Cut Teeth.*



SMALL M TOOTH. KNOWN AS LIPPINCOTT LIGHTNING.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.



LUMBERMAN'S TOOTH.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.



ELECTRIC TOOTH.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.



DIAMOND TOOTH.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.



LARGE SIZED M TOOTH. KNOWN AS LIPPINCOTT PATTERN.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.



FEATHER EDGE. THIN BACK. Two Cutting and One Clearing Tooth.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.



DOUBLE HOOK TOOTH, OR TUTTLES' PATENT.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.

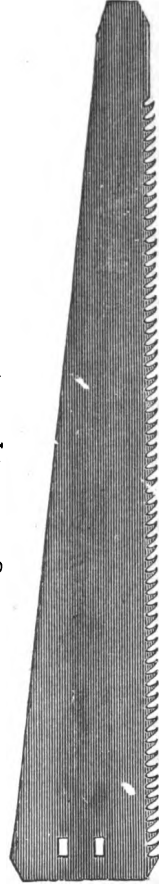


CHAMPION STYLE TOOTH.

Hubbard, Bakewell & Co. . . . 55 cents per foot. | Lippincott & Co. . . . 50 cents per foot.
 PRATT & Co.'s Cross-Cuts of any of these styles . . . 40 cents per foot.

No Cross-Cut Tangs or Ears furnished at these prices.

Cross-Cut Tangs or Ears, per set, 5 cents.



WARRANTED EXTRA TEMPERED PIT SAWS.

Length	5	6	6½	7	7½	8 feet.
Price	\$7.00	8.00	9.00	10.00	11.00	13.00 each.

SHOVELS, SPADES, SCOOPS, ETC.

SPECIAL NOTICE.

Special attention is directed to our Solid Cast Steel Shovel and Spade. We have had this new shovel introduced for nearly two years, and have thus far been unable to supply the demand for them. They are unquestionably the best shovels made and sold by the trade, unless made under the same patent as the one we use.

The entire blade and strap are one solid piece of steel, while all other solid (so-called) steel shovels are iron strap and steel blade: the strap being either welded to the blade in the mould, or in the sheet.

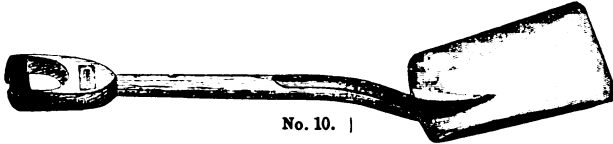
The shovels made in the old way, or under other patents, are frequently imperfect and always weak at this weld, the junction of strap and blade. In ours the entire blade and strap are solid cast steel, and the steel strap is annealed so as to be strong and tough. Every blade is carefully tempered, and is in reality an edge tool; some of our customers report to us that the spades are frequently used for sharpening stakes, etc., about brick yards, and others that they do one fourth more work than any other. So much for the **BEST SOLID CAST STEEL SHOVEL** made.

We also want to call attention to the two new styles of Scoops made by us. The one is the **CORRUGATED STRAP**, which is fully illustrated and explained on page 241. The other is the **SOCKET STRAP**, which has but recently been patented, and is entirely unknown to the trade. The strap above the blade for the space of two and a half inches is laid around the handle and meets the back strap, making in reality a socket strap scoop. This shape enables us to put in an extra rivet, and both added together materially strengthen the strap. We think we have a strapped scoop which will eventually take the lead of all others, and is undoubtedly three times as strong as the regular strap.

More than twenty years ago we made shovels with only a front strap, and have continued their manufacture more or less ever since, and if any of our customers desire shovels made in this way we will make them. It is our opinion, however, that when a strapped shovel is required for any purpose, that the back and front strap properly put on strengthens the shovel by more than fifty per centum more than the front strap alone. In other words, a shovel made with back and front strap is stronger, if of the same weight and quality, than a shovel with only the front strap.

D Handle Square Point Shovels.

Plain Back.

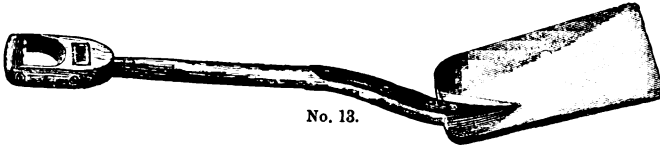


No. 10. |

Hubbard, Bakewell & Co.

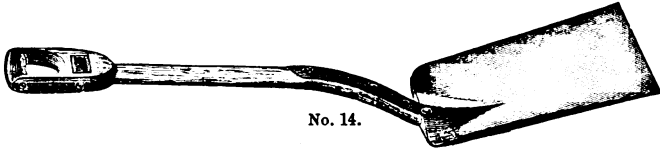
PRICE PER DOZEN.

Order No.	Size.	Blk.	Pol.	
10	2	\$11.50	\$12.50	Patent Solid Cast Steel.
12	4	13.50	14.50	Patent Solid Cast Steel.



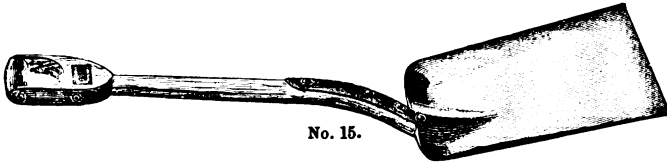
No. 13.

Order No.	Size.	Blk.	Pol.	
13	5	\$14.50	\$15.50	Patent Solid Cast Steel.



No. 14.

Order No.	Size.	Blk.	Pol.	
14	6	\$15.50	\$16.50	Patent Solid Cast Steel.



No. 15.

Order No.	Size.	Blk.	Pol.	
15	7	\$16.50	\$17.50	Patent Solid Cast Steel.
16	2	11.50	12.50	Patent Solid Moulders.
17	2	9.25	10.00	Extra Railroad.
19	4	10.25	11.00	Extra Railroad.
20	5	11.00	11.50	Extra Railroad.
21	6	11.50	12.25	Extra Railroad.
22	7	12.25	12.75	Extra Railroad.

Lippincott & Co.

Order No.	Size.	Blk.	Pol.	
23	2	\$8.75	\$9.25	Cast Steel Edge.
25	4	9.75	10.25	Cast Steel Edge.
26	5	10.25	11.00	Cast Steel Edge.
27	6	11.00	11.50	Cast Steel Edge.
28	7	11.50	12.25	Cast Steel Edge.

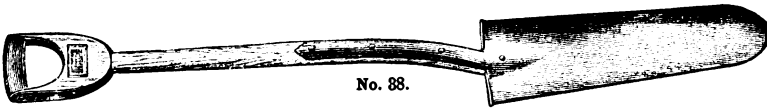
James & Co.

29	2	\$8.25	\$8.75	Steel Edge.
31	4	9.25	9.75	Steel Edge.
32	5	9.75	10.25	Steel Edge.
33	6	10.25	11.00	Steel Edge.
34	7	11.00	11.75	Steel Edge.

Long Handle, same price.

D Handle Spades.**Plain Back.****Hubbard, Bakewell & Co.****PRICE PER DOZEN.**

Order No.	Size.	Blk.	Pol.	
35	2	\$11.50	\$12.50	Patent Solid Cast Steel.
36	2	9.25	10.00	Extra Railroad.
37	2		15.00	Nursery, Heavy Ironed.



Order No.	Size.	Blk.	Pol.	
38	2		\$13.00	(191) Drain.



Order No.	Size.	Blk.	Pol.	
39	2		\$13.00	(194) Ditching.

Hubbard, Bakewell & Co. — *Continued.*

Order No.	Size.	Blk.	Pol.	
40	2		\$13.00	Post Hole.
41	2		15.00	Subsoil.



Lippincott & Co.

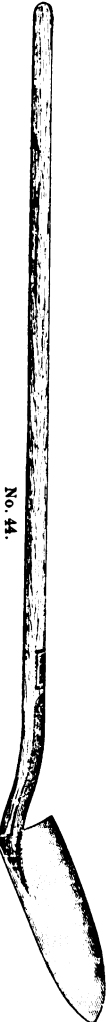
Order No.	Size.	Blk.	Pol.	
42	2	\$8.75	\$9.25	Cast Steel Edge.

James & Co.

43	2	\$8.25	\$8.75	Steel Edge.
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Long Handle, same price.

Nos. 38, 39, and 40 Spades, made only Full Polish.



LONG HANDLE

Round Point Shovels.

Plain Back.

Hubbard, Bakewell & Co.

PRICE PER DOZEN.

Order No.	Size.	Blk.	Pol.	
44	2	\$11.50	\$12.50	Patent Solid Cast Steel.
45	2	9.25	10.00	Extra Railroad.

Lippincott & Co.

46	2	\$8.50	\$9.00	Cast Steel Edge.
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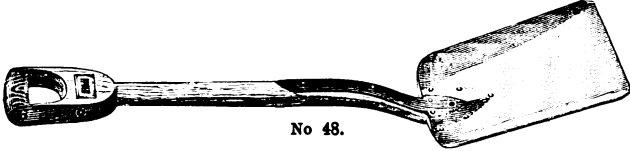
James & Co.

47	2	\$8.00	\$8.50	Steel Edge.
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D Handle, 50 cents per dozen more.

Square Point Shovels.

D Handle. Back Strap.

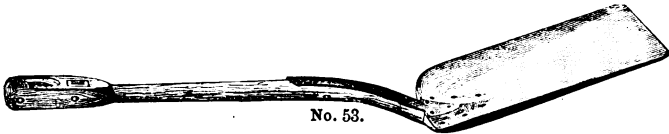


No. 48.

Hubbard, Bakewell & Co.

PRICE PER DOZEN.

Order No.	Size.	Blk.	Pol.	
48	2	\$8.00	\$8.50	Extra Cast Steel.
49	2	8.00	8.50	Extra Moulders.



No. 53.

Order No.	Size.	Blk.	Pol.	
53	6	\$10.00	\$10.50	Extra Cast Steel.

Lippincott & Co.

Order No.	Size	Blk.	Pol.	
54	2	\$7.50	\$8.00	Cast Steel.
58	6	9.50	10.00	Cast Steel.

James & Co.

59	2	\$6.75	\$7.00	Steel.
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Anderson.

60	2	\$5.25	\$6.25	Extra Iron.
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Long Handles, same price.

Square Point Spades.

D Handle. Back Strap.

Hubbard, Bakewell & Co.

PRICE PER DOZEN.

Order No.	Size.	Blk.	Pol.	
62	2	\$8.00	\$8.50	Extra Cast Steel.

Lippincott & Co.

63	2	\$7.50	\$8.00	Cast Steel.
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James & Co.

Order No.	Size.	Blk.	Pol.	
64	2	\$6.75	\$7.00	Steel.

Anderson.

65	2	\$5.25	\$6.25	Extra Iron.
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Long Handles, same price.

Long Handle Round Point Shovels.**Back Strap.****Hubbard, Bakewell & Co.****PRICE PER DOZEN.**

Order No.	Size.	Blk.	Pol.	
67	2	\$8.00	\$8.50	Extra Cast Steel.

Lippincott & Co.

68	2	\$7.50	\$8.00	Cast Steel.
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James & Co.

69	2	\$6.75	\$7.00	Steel.
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Anderson.

70	2	\$5.25	\$6.25	Extra Iron.
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D Handle, 50 cents per dozen more.

LONG HANDLE**Round Point Mining Shovels.****Back Strap. Full Polished.****Hubbard, Bakewell & Co.****PRICE PER DOZEN.**

Order No.	Size.	Price.	
71	2	\$9.75	Half and full Spring Point.
71½	2	10.00	Stiff Point.

Lippincott & Co.

72		\$9.00	Half and full Spring Point.
73		9.25	Stiff Point.

James & Co.

74		\$8.50	Stiff Point.
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D Handles, 50 cents per dozen more.

Round Point Collier Shovels.

Hubbard, Bakewell & Co.

PRICE PER DOZEN.

Order No.	Size.	Blk.	Pol.	
75	2	\$6.00	\$6.50	Extra Cast Steel.

Lippincott & Co.

76	2	\$5.50	\$6.00	Cast Steel.
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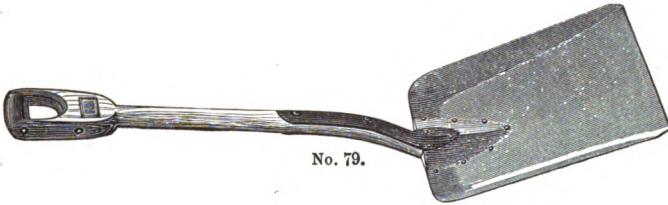
D Handle Coal Shovels.

Back Strap. Half Polished.

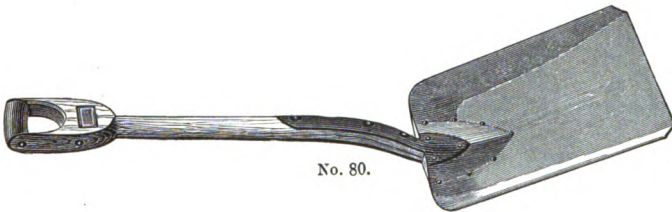
Hubbard, Bakewell & Co.

PRICE PER DOZEN.

Order No.	Size.	Price.	
78	1	\$10.00	Extra Cast Steel.



Order No.	Size.	Price.	
79	2	\$10.50	Extra Cast Steel.



Order No.	Size.	Price.	
80	3	\$11.50	Extra Cast Steel.
81	4	16.00	Extra Cast Steel Coke.

Lippincott & Co.

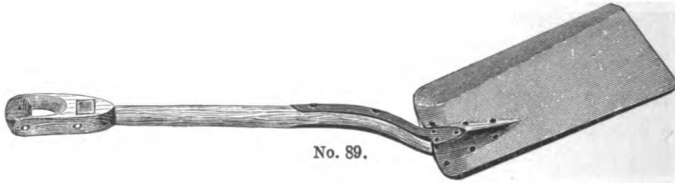
82	1	\$9.00	Cast Steel.
83	2	9.50	Cast Steel.
84	3	10.50	Cast Steel.

Anderson.

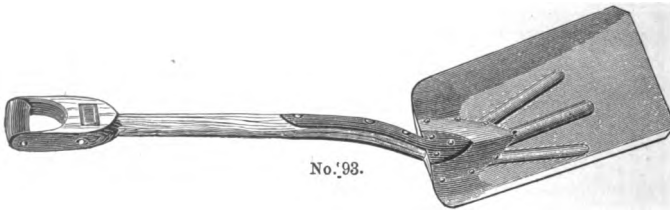
Order No.	Size.	Price.	
85	1	\$8.00	Extra Iron.
86	2	8.75	Extra Iron.
87	3	9.75	Extra Iron.

Hubbard, Bakewell & Co.

88	1	\$8.50 Net.	Sunken Back.
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Order No.	Size.	Price.	
89	2	\$9.00 Net.	Sunken Back.
90	3	9.50 Net.	Sunken Back.
91	4	17.00 Net.	Sunken Back Coke.
92	1	9.00 Net.	Corrugated.



Order No.	Size.	Price.	
93	2	\$9.50 Net.	Corrugated.
94	3	10.00 Net.	Corrugated.

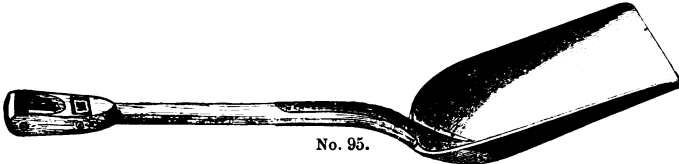
Black, 50 cents per dozen less.

Corrugated Strap, 50 cents net per dozen more.

Long Handle, same price.

OUR REGULAR Pittsburgh Pattern Scoops.

Back Strap. Full Polished.

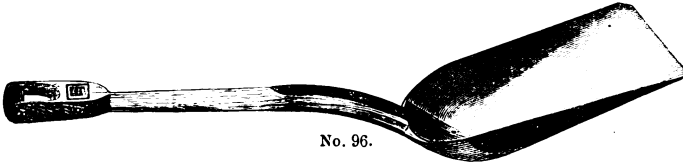


No. 95.

Hubbard, Bakewell & Co.

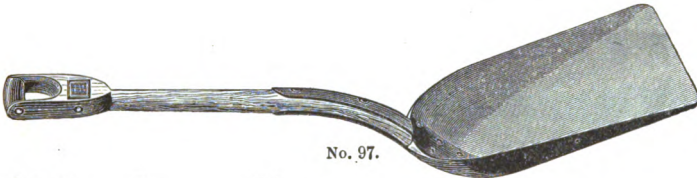
PRICE PER DOZEN.

Order No.	Size.	Price.	
95	1	\$11.25	Extra Cast Steel.



No. 96.

Order No.	Size.	Price.	
96	2	\$11.75	Extra Cast Steel.



No. 97.

Order No.	Size.	Price.	
97	3	\$12.25	Extra Cast Steel.
98	4	12.75	Extra Cast Steel.

Half Polished, 25 cts. per dozen less. Black, 50 cts. per dozen less.

Lippincott & Co.

99	1	\$10.25	Cast Steel.
100	2	10.50	Cast Steel.
101	3	10.75	Cast Steel.
102	4	11.00	Cast Steel.

Half Polished, 25 cts. per dozen less. Black, 50 cts. per dozen less

Anderson.

103	1	\$9.00	Extra Iron.
104	2	9.25	Extra Iron.

Anderson — Continued.

Order No.	Size.	Price.	
105	3	\$9.50	Extra Iron.
106	4	9.75	Extra Iron.

Half Polished, 25 cts. per dozen less. Black, 50 cts. per dozen less.

R. Woods.

107	1	\$8.75	Iron.
108	2	9.00	Iron.
109	3	9.25	Iron.
110	4	9.50	Iron.

Half Polished, 25 cts. per dozen less. Black, 75 cents per dozen less.

Long Handle, same price.

Corrugated Straps, 50 cents net per dozen more.

Galvanized, \$3.00 net per dozen more.

North-Easton Pattern Scoops.

Back Strap. Full Polished.



No. 111.

Hubbard, Bakewell & Co.

PRICE PER DOZEN.

Order No.	Size.	Price.	
111	2	\$9.75	Extra Cast Steel.
112	3	10.25	Extra Cast Steel.

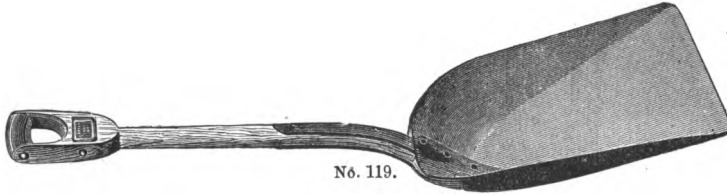


No. 113.

Order No.	Size.	Price.	
113	4	\$10.75	Extra Cast Steel.
114	5	11.25	Extra Cast Steel.
115	6	11.75	Extra Cast Steel.
116	7	12.25	Extra Cast Steel.

Hubbard, Bakewell & Co. — Continued.

Order No.	Size	Price.	
117	8	\$12.75	Extra Cast Steel.
118	9	13.25	Extra Cast Steel.



Order No.	Size.	Price.	
119	10	\$13.75	Extra Cast Steel.

Half Polished, 25 cts. per dozen less. Black, 50 cts. per dozen less.

Lippincott & Co.

124	2	\$9.25	Cast Steel.
125	3	9.50	Cast Steel.
126	4	9.75	Cast Steel.
127	5	10.25	Cast Steel.
128	6	10.50	Cast Steel.
129	7	10.75	Cast Steel.
130	8	11.00	Cast Steel.
131	9	11.25	Cast Steel.
132	10	11.50	Cast Steel.

Half Polished, 25 cts. per dozen less. Black, 50 cts. per dozen less.

Anderson.

137	2	\$8.00	Extra Iron.
138	3	8.25	Extra Iron.
139	4	8.50	Extra Iron.
140	5	9.00	Extra Iron.
141	6	9.25	Extra Iron.
142	7	9.50	Extra Iron.
143	8	9.75	Extra Iron.
144	9	10.00	Extra Iron.
145	10	10.25	Extra Iron.

Half Polished, 25 cts. per dozen less. Black, 50 cts. per dozen less.

R. Woods.

150	2	\$7.75	Iron.
151	3	8.00	Iron.

R. Woods — Continued.

Order No.	Size,	Price,	
152	4	\$8.25	Iron.
153	5	8.75	Iron.
154	6	9.00	Iron.
155	7	9.25	Iron.
156	8	9.50	Iron.
157	9	9.75	Iron.
158	10	10.00	Iron.

Half Polished, 25 cts. per dozen less. Black, 75 cts. per dozen less.

Corrugated Straps, 50 cents net per dozen more.

Locomotive and Coal Scoops.

Back Strap. Full Polished.

NORTH-EASTON PATTERN.

Hubbard, Bakewell & Co.

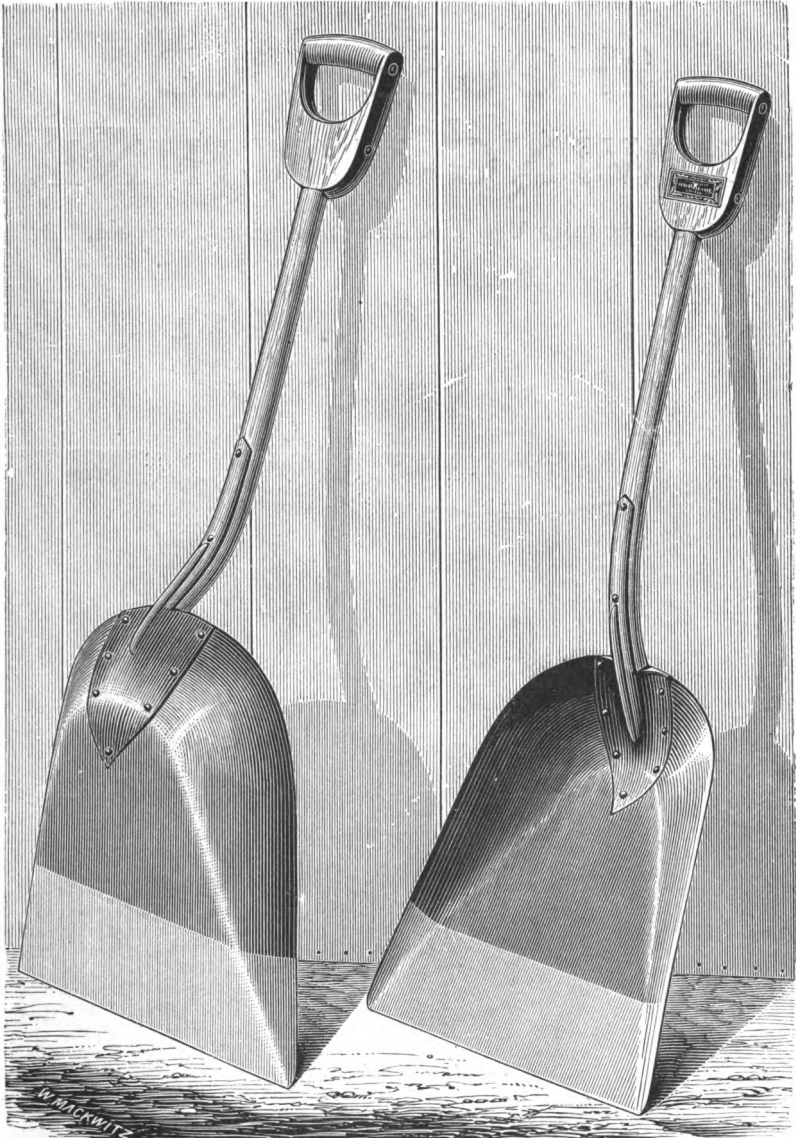
PRICE PER DOZEN.

Order No.	Size.	Price.	
163	2	\$11.00	Extra Cast Steel.
164	3	11.50	Extra Cast Steel.
165	4	12.00	Extra Cast Steel.
166	5	12.50	Extra Cast Steel.
167	6	13.00	Extra Cast Steel.
168	7	13.50	Extra Cast Steel.

Extra heavy Blades and Straps.

Corrugated Straps, 50 cents net, per dozen more.

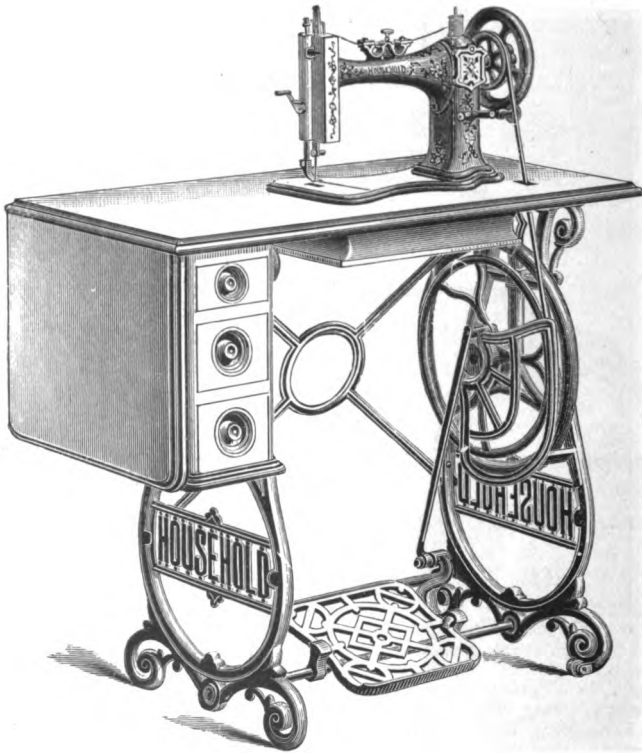
Corrugated Strap Scoops.



We wish to call especial attention to the Corrugated Strap, and give a front and back view of the same as applied to Scoop Shovels. We apply the strap to every kind of Shovel ordered, but recommend it particularly for Coal Shovels and Scoops.

THE
"HOUSEHOLD"
SEWING-MACHINE,

For Family Use and Manufacturing Purposes,



IS MADE ONLY BY THE

Providence Tool Company,

AND IS UNEXCELLED BY ANY MACHINE IN USE.

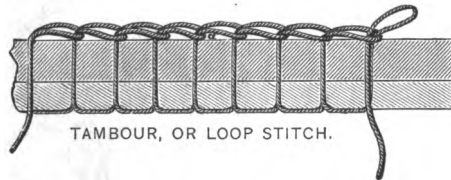
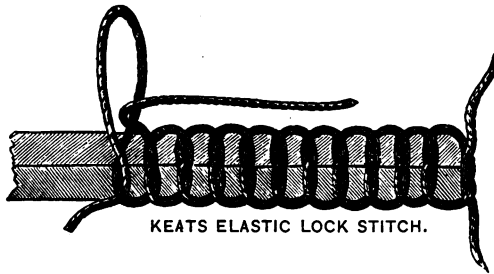
*Easy Running. Simple in Construction. Perfect
in Workmanship.*

The Providence Tool Company are also the sole American manufacturers of

THE KEATS PATENT

Lock-Stitch Sewing-Machine,

Making an elastic lock stitch with two threads, both sides alike with any kind of hard wax, equal to the best hand-sewing.



Applications for licenses to be made to the

KEATS MACHINE COMPANY,

PHILIP D. BORDEN, *President.*

Providence, R. I.

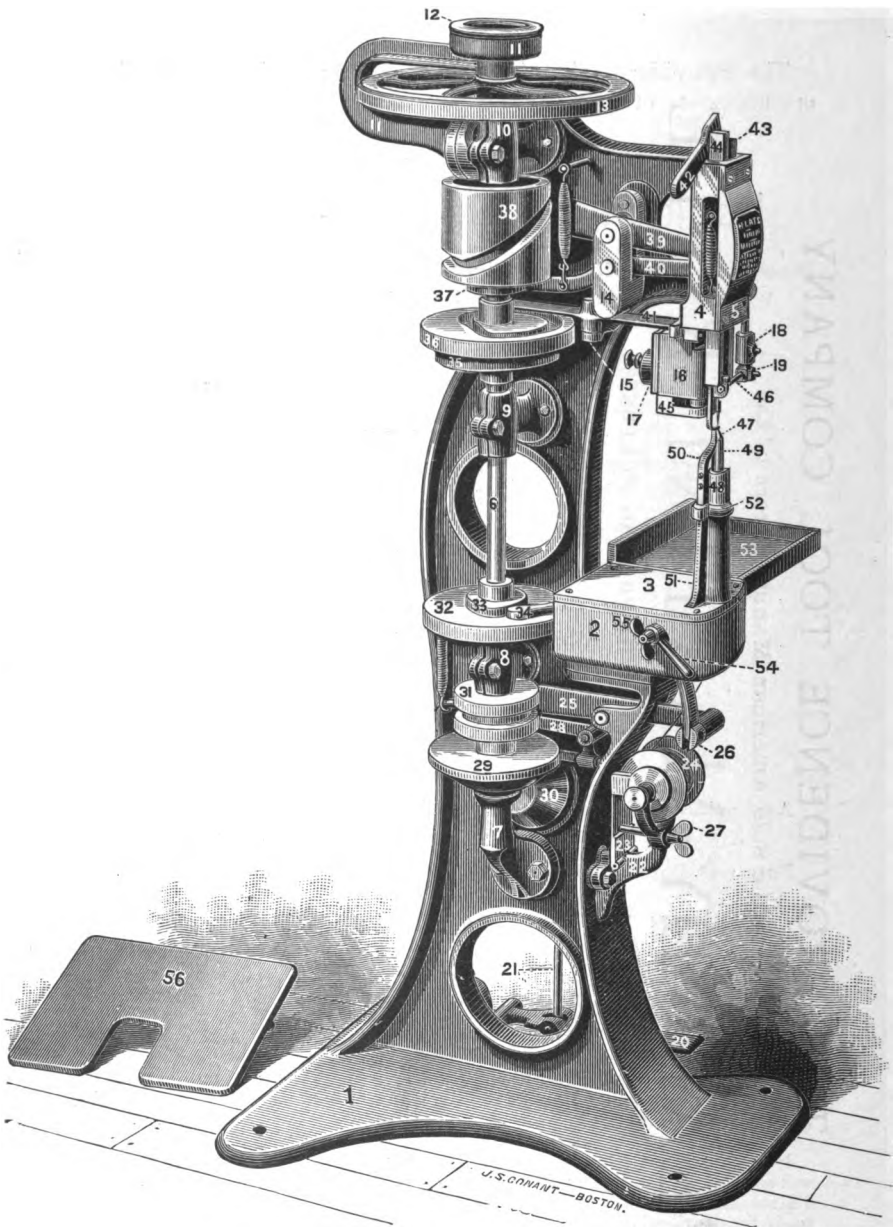
THE KEATS MACHINE COMPANY

Are prepared to supply their lock-stitch, wax-thread Sewing-Machines, and invite any person in the leather trade to inspect machines in practical operation at the works of the PROVIDENCE TOOL CO., Providence, R. I. We are now prepared to furnish our

No. 1, or Closing Machine, for boot side closing, boot vamping, light sole and welt stitching, closing the front seams of Ladies' and Gentlemen's Gaiters, light harness and saddlery work, mill bands, etc.

Our **No. 2, or Heavy Post Machine,** is in course of manufacture, for stitching heavy boot soles, heels, traces, heavy harness work, and mill bands. These machines will be ready in a few weeks.

No. 3, or Horn Machine, for sewing through outer and inner sole of boots and shoes (heavy or light); also for sewing in welts preparatory for Nos. 1 and 2 Machines. The No. 3 Machines are in use in England and Canada, and will be ready for distribution in this country in a few months. These machines are the only ones for sole sewing and harness work with a lock stitch, which received the award at the "Centennial." First-class workmanship guaranteed, and parts made uniform throughout the world. Supplied only by the **KEATS MACHINE CO.** We are prepared also to supply a Patent Channeling Machine, Waxing, and Cop Winding Apparatus for Thread, etc.



Keats No. 1, or Closing Machine.

For Boot Closing, Stitching Soles to Welts, Light Harness Work, etc.

Making a Lock Stitch with Two Threads, both sides alike, with any kind of Hard Wax.

Manufactured by PROVIDENCE TOOL CO., Providence, R. I.

THE PROVIDENCE TOOL COMPANY

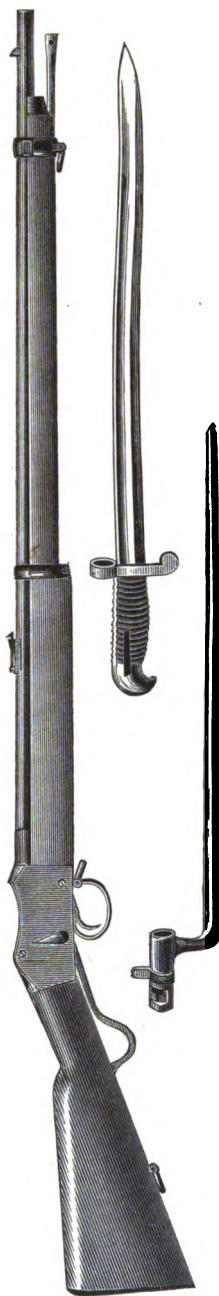
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FOR MILITARY, TARGET, AND SPORTING PURPOSES.

The Standard Arm of Great Britain and of the Ottoman Empire.

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Long and Mid-Range "Creedmoor" Rifles, also the "What-Cheer" and Hunting or "Kill-Deer" patterns, of the highest excellence in finish and efficiency, constantly on hand.

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